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ABSTRACT

Critical dimensions of the unemployment problem in Africa brought educational concerns to a head. The present survey, conducted by the African-American Institute, was prompted by a growing desire on the part of African governments and aid agencies to identify productive nonformal education programs in selected African countries and to explore alternative means of upgrading the skills and productivity of that vast majority of population which gets too little or no formal education. The report consists of five indepth case studies and descriptions of 70 projects that are representative of the categories and models in African nonformal education. These categories include (1) industrial and vocational training, primarily in the urban/modern sector, which may be subdivided into pre-employment programs; (2) agricultural training and rural community development, subdivided according to target populations: (3) programs aimed principally at rural youths, particularly school "leavers"; (4) training programs for adults in rural areas; and (5) descriptions of multipurpose programs. (Author/JR)

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NON-FORMAL EDUCATION IN AFRICAN DEVELOPMENT

Report of a Survey
Conducted by the African-American Institute
with financial support from
The United States Agency for International Development

by

James R. Sheffield
Victor P. Diejomaoh

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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INTRODUCTION

Context of African Education

In Africa, as in other parts of the world, most people have traditionally acquired their skills, knowledge and attitudes from institutions other than formal schools. Even where formal school systems have been established, a relatively recent phenomenon, it is still difficult to separate the impact of schooling from that of one's family, community, cultural and social institutions, and training on-the-job. But it has become increasingly apparent in all countries that learning acquired in a life-long process is of far greater importance than the more specific knowledge transmitted in schools.

The modernization process, however, has continued to place a heavy emphasis on formal school systems. These educational systems are expected to create useful citizens, to teach literacy, and to prepare young people for the lives they must lead in adult societies by providing them with basic minimum skills. Demands by parents for publicly supported schooling as the principal means of escape from poverty have led to dramatic increases in the provision of educational opportunity through the world. These demands are reinforced, and growth of schooling accelerated, by government and private industry recognition of a pressing need for higher levels of trained manpower.

Economists have debated as to whether education is a prerequisite for development, or vice versa. But there is little question that human resource development and improved standards of education are closely linked: one cannot proceed very far without the other. The experience of the last decade has underlined the fact that illiteracy and insufficient education seriously retard modernization efforts in developing countries.

In Africa, the demand for education on the part of parents and governments developed rapidly during the 1960's. Governments responded to these demands to the point where expenditures on education were growing far more rapidly than national budgets. As a result, the development of formal schools and the output of students grew at many times the rate of growth in wage employment. In the first years after independence, African governments could legitimately claim that the need for high-level manpower justified the rapid expansion of secondary and high-level educational institutions. This manpower was urgently needed to Africanize the public service and to staff management positions in the private sector. That education provided the key to progress became an article of faith, and this belief was reinforced by the enormous dif-

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ferential between the salaries one could expect in urban wage employment and the average *per capita* income in most African states.

Not until the late 1960's did African governments begin seriously to question the wisdom of continued rapid expansion of formal educational systems. In addition to severe economic constraints, virtually all of the African nations were faced with the emerging problem posed by school-leavers, those who had completed some education but were unemployed. The small modern sector of the economy had been Africanized much more rapidly than most observers had forecast, and jobs were already at a premium. The consequent frustration among youths who had expected that eight or more years of formal schooling would provide automatic access to wage employment has led to serious doubts among African leaders about the direction education should take.

Much has been written about the irrelevance of the formal educational systems inherited from the colonial powers in Africa. These systems imported from Europe were too academic and were primarily geared to foreign examination systems, rather than to the needs of predominantly rural African societies. But attempts by colonial governments to localize curricula were perceived as efforts to offer Africans an inferior education. In many African countries, the introduction of vocational or agricultural subjects was resisted by parents, who saw it as a blatant means of denying their children access to the top positions in the modern urban society. At present, most African educational systems use local examples in their science and mathematics curricula, and African literature, history and geography are taking their place alongside European subject matter.

Although reform of the formal school systems in Africa still has a long way to go (as it does in most other countries), such efforts are urgently needed. Nevertheless the role of formal education is closely linked with the creation of urban elites. Parents and children will continue to look to urban wage employment for the fortunate few who get through secondary school. So long as fewer than 10 per cent of the age group in a country complete secondary school, and so long as jobs in the modern sector (however scarce these jobs may actually be) pay five to 20 times the country's *per capita* income, schools will be elitist no matter what they teach.

Schools are not solely responsible for this situation. In Africa, one frequently hears the cliche that "school children are unwilling to work with their hands." But the incentive structure makes it highly undesirable for children to return to the unreformed peasant agriculture of their parents when other opportunities seem to be available. Throughout Africa numerous school-leavers at various levels engage in manual labor or in farming, when these occupations are profitable. It is unrealistic, though, to expect school-leavers to return to unprofitable peasant farming when they have worked so hard to advance beyond it.

In the industrial nations, too, social critics have voiced deep dissatisfaction with formal school systems. Advocates of deschooling, such as Ivan Illich, strike a respondent chord in many countries when they point to the monopolistic control of educational systems and the structure centering around degrees, diplomas and other requirements closely linked to industrial society. Schools are seen as tools of the establishment, used for screening poverty groups from access to top positions in society. In every country, the distribution of formal schools and opportunities for admission to them have important political overtones. It is no longer possible to avoid the question of what is being done for the large numbers of young people who do not make it through a particular system.

Rationale for the Study

The critical dimensions of the unemployment problem in Africa have brought these concerns to a head. The present survey, conducted by the African-American Institute, was prompted by a growing desire on the part of African governments and aid agencies to explore alternative means of upgrading the skills and productivity of the vast majority of the population that gets little or no formal schooling. Not only are the costs of formal schooling rising much faster than national budgets, but the investment in schools (whether public or private) has not paid off in jobs for many of those who have completed various levels of schooling.

As the inherent limitations of formal schooling have become evident, interest in non-formal education has increased. This term is obviously a broad one, as will be clear from the diversity of the programs described in this report. We began with a fairly narrow definition of the formal system as consisting of the following institutions: primary and secondary schools, teacher-training colleges, universities and government-operated technical and agricultural schools. The rubric of "non-formal education" thus covers nearly all training and instruction outside this sphere, and ranges from individualized apprenticeships to nationwide literacy programs. Non-formal education, which is roughly synonymous with the more widely used term "out-of-school education," is thus closer to the concept of *training* (e.g. for employment) than the concept of *education* (which often includes broader aspects of personal development).

Non-formal educational programs are supposed to serve several needs: (1) as an alternative for those who lack the opportunity to acquire formal schooling; (2) as an extension of formal schooling for those who need additional training to get them into productive employment (or to become self-employed); and (3) as a means of upgrading the skills of those already employed.

Purpose

As defined by the terms of the contract between the United States Agency for International Development and the African-American Institute, our assignment was to "identify productive non-formal education programs in selected African countries." The contract called for attention to programs that were "successful, innovative and transferable" so that African governments and external aid agencies could learn from these projects and develop useful projects elsewhere. Programs leading to employment were a main concern of the survey, but in most cases this meant self-employment rather than wage employment in the modern sector. This emphasis stems from a conviction that job opportunities in the modern sector will not expand fast enough to meet the demands of the unemployed.

We began our survey with the conviction that absolute standards defining the qualities "successful, innovative and transferable" would be of limited utility. We recognized that we would be unable adequately to resolve the problem of exact comparability, since in many instances precise quantitative data on a project's performance had never been compiled. Wherever cost-benefit data were available, however, we attempted to incorporate them into our findings.

In the course of our investigations, we worked with the following general assumptions: (1) that a "successful" project should have a record of placing its trainees in some form of remunerative employment, or of effecting increased productivity among workers whose skills had been upgraded; (2) that "innovation" is usually marked by the initiative of local communities or private individuals in utilizing existing resources and facilities, or in generating new economic activity, particularly in rural areas; and (3) that "transferability" involves low capital investment and recurrent costs, a fairly streamlined administrative structure, and potential applicability to the general problem of employment rather than to conditions that are specific to only one region or country.

Procedure

Given the constraints of time and budget, the study relied upon existing documentation and local researchers whenever possible, since it was clearly not feasible for our staff to generate original research on most of the projects.

From March to May, 1971, we spent several weeks in the field identifying persons and programs to follow up in further detail during the summer. At this point local researchers were hired to gather data on selected projects, and documents were gathered in order to determine which projects the team would visit during the main field phase in June and July.

Our survey is not complete in any sense of the word. We were unable to visit every country in Africa, and in those we did visit, our selection of projects was determined by the availability of relevant data. Thus our report consists of a series of case studies of varying length, five of which provide in-depth description and analysis:

(1) Vocational Improvement Centers, Nigeria (Part II)
(2) Brigade Training, Botswana (Part III)
(3) Village Polytechnics, Kenya (Part III)
(4) Work-Oriented Literacy Project, Tanzania (Part IV)
(5) Pan-African Institutes for Development, Cameroon (Part V)

The remaining case studies include descriptions of 30 projects that are representative of the primary categories and models in African non-formal education, and briefer sections on more than 40 other projects.

We did not always limit ourselves to individual institutions or programs, but in several instances studied broader training projects such as the Brigades and Village Polytechnics. Our study also encompassed technical and vocational education and farmer education in what might be considered fairly formal classroom contexts, but our primary interest was in the ways such programs related to the job market and not in specific content or instructional methodology.

We are not entirely comfortable with the term "non-formal education," since many training programs for both youths and adults actually operate in fairly formal institutional settings. Similarly, some informal aspects of the formal system, such as the Ethiopian University Service, have been included as important models that could be emulated elsewhere. On the whole, we have tried to avoid getting bogged down in questions of terminology, and it is doubtful whether any of the projects selected could be considered "successful, innovative *and* transferable." However, all of the projects selected met one or more of these criteria. With regard to transferability we felt that certain attributes of the models were of particular interest.

In conducting our survey, we were aware that many persons were more knowledgeable, both in regard to the field as a whole and to specific programs, than we could hope to be within the time available. Similarly, we were sensitive to the growing skepticism in many parts of the world towards quick surveys done by outside agencies. Too often, such surveys have failed to yield anything of use to the people whose lives and work have been studied and appraised. We have tried to avoid some of these pitfalls through greater participation by Africans in all phases of our work.

The Lagos Workshop

Shortly after completion of a draft of this report, the Center for Continuing Education at the University of Lagos sponsored a Workshop on Non-Formal Education, with support from the African-American Institute. The workshop was held at the Nigerian Institute of International Affairs, Lagos, from November 13–16, 1971. Participants (the majority of them Africans) included persons involved in various aspects of non-formal education in 10 African countries plus representatives of international aid agencies. A description of the workshop and list of those who attended is found in Appendix I. Using the first draft of our report as a focal point, workshop participants examined the survey in light of their own priorities in the field.

The timeliness and utility of the workshop were underlined by Professor A. B. Aderibigbe, Deputy Vice-Chancellor of the University of Lagos, in his welcome address: "Formal education, important as it is, cannot solve all the problems now facing African society. It is therefore necessary to develop an educational strategy that will enable the majority of the population to share in the modernization process. . . . We must take a closer look at present non-formal education in Africa, to discover its scope and orientation, and to see how it can be modified to make it a powerful agent of development."

The workshop sessions, besides bringing together many personnel active in the field, also produced a number of suggestions and comments on our survey. These suggestions proved very helpful in preparing this final version.

Format of the Report

The structure of our report conforms to the major categories we identified in the extensive field of non-formal education. The first category includes industrial and vocational training, primarily in the urban/modern sector, and may be subdivided into pre-employment programs (covered in Part I) and on-the-job training and skill-upgrading programs (Part II). The second major category consists of agricultural training and rural community development, and is subdivided according to target populations. Thus, Part III includes programs aimed principally at rural youths, particularly school-leavers, and Part IV deals with training programs for adults in rural areas. Our third major category embraces a number of varied, multi-purpose programs in a combination of areas such as literacy, family planning, and citizenship. Part V of the report describes several multi-purpose programs. Some of the projects studied, however, do not fit neatly into any category.

Acknowledgments

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PART

I

Industrial and Vocational Training: Pre-Employment Programs

BRIEF CASE STUDIES

1. EAST AFRICA:

YWCA Training Programs for Girls

a. Kenya

The Kenya YWCA has three different centers designed to train girls and women for employment. One of these centers is the vocational training school at Limuru for primary-school-leavers between the ages of 15 and 17. This two-year program teaches general domestic science including nutrition, poultry keeping and dressmaking. The second is a vocational training school at Mombasa for girls with school certificates. This training, which lasts one year, includes shorthand, typing, office management and bookkeeping. The third center is a dressmaking school for young women and girls who have had basic training in dressmaking but wish to specialize in cutting and designing.

Each year the YWCA receives more than 1,000 applications from all over Kenya. Places, however, are quite limited. At Limuru only 36 girls can be taken and at Mombasa only 25. All three centers are national schools; they cover the whole of Kenya and, therefore, must have proportional national representation.

After training, the YWCA attempts to find jobs for the girls. The openings available are for boarding school wardens, hospital wardens, assistant cateresses, nursery attendants, and store keepers. There has been little or no difficulty in placing these people. The program's main problem is finding qualified teachers who are willing to stay at the YWCA, despite limited facilities and minimum salary. The organization has now brought in three expatriates that work in Mombasa and Nairobi to provide teacher-training for two years. Three African women act as understudies so that they can eventually take over the training of more teachers.

These activities are significant because they are, for the most part, more sophisticated than most activities undertaken by YWCAs. Girls are trained for a specific skill and are then placed in jobs. Even with the most general training, these girls are able to find jobs beyond the housewifery that these training courses generally lead to in other countries.

b. Cottage Training, Dar es Salaam, Tanzania

This program aims to make primary-school-leaving women, generally between the ages of 14 and 16, self-sufficient. The girls are given training courses in embroidery. The length of the training, one or two months, depends on a girl's progress. After training, they join the YWCA Workshop where they do embroidery and are paid per piece of work done.

When the program began in 1967, seven girls underwent training. Thirty girls are now in training. Two groups of women, on alternate days, work in the workshop which is open five days per week. There is one supervisor who is also the teacher of the course. This limits the number of girls that can be admitted at one time.

So far, the Center has sold all of the embroidered work that the women have produced. Some girls, by working in the workshop, earn between $21 and $26 a month.

A related program is run for more mature young women, some of whom are married. They are trained as seamstresses, usually for two months, because most of them know how to sew but do not have the skills of a trained seamstress. For this course there is one teacher and also a supervisor. There is such a large demand for the goods produced by these women that as soon as a new stock of shirts and dresses is made, it sells out completely. Usually there are 15 women in this course who stay on to work for the Center after their training. The seamstresses get a basic salary plus 10 per cent commission on the clothes that are sold.

The YWCA gives a final training course in basket weaving to about 10 women. This training is conducted in the same fashion as the other training. The women are trained and then stay on to work. Because the market for baskets is not quite as good as it is for sewn materials, the women also learn to do tie-and-dye.

This program, though small, is important because it is a self-financing activity in which training and employment are combined. It also demonstrates that there are employment possibilities for women who might otherwise be limited to housework.

c. Buseko Home Industries, Kitwe, Zambia

The YWCA of Kitwe has established Buseko Home Industries as a means for women who have finished primary school to help their families by earning money. The women, usually 20 to 25 in each class, are given a six-month course in sewing, both by hand and with machines.

In contrast to the training at the YWCA in Dar es Salaam, Tanzania, this program trains women who begin with little or no knowledge of sewing. The women pay $12 a month for their noon meals, which they prepare themselves at the YWCA Center.

The shop has been able to sell everything it makes and could sell more.

Thus, there is room for more training and for more women to be employed in this activity. Not only is the work sold to individuals, but shopkeepers from Kitwe come to buy the goods wholesale. The YWCA is the only place in the town where one can buy ready-made clothes.

There are three teachers for the women, including the project director and a supervisor who was a student at the Center. The price of the goods that the women sell covers their share of the profit, salaries for the teachers, the cost of material, and the cost of building the Center. Machinery includes six electric sewing machines and six hand-cranked sewing machines.

2. ETHIOPIA

Ethiopian Airlines:

Pilots' Training Center and Aviation Maintenance School

Background

Ethiopian Airlines was started in 1945 under a management services contract with Trans World Airlines. During the mid-1960's, the Manpower Planning and Development Department of Ethiopian Airlines established two schools to promote the participation of Ethiopian nationals in the company. The first of these schools was designed for pilot training; the second was founded to train aviation maintenance technicians. The officially stated goal of the program was to ensure "a continuous flow of qualified personnel in the number and types required and at the time required by the airline's operational needs and maximizing the development of *Ethiopian* personnel within the shortest practicable time."

Plant, Equipment and Courses

Both schools are located in new buildings at the Addis Ababa airport. The maintenance school is probably the best equipped, most sophisticated facility of its type on the continent. It employs highly qualified veteran instructors, and its curriculum meets both the American FAA and the British ARB standards of repair instruction. The characteristics of the two schools can be described separately:

1. The Maintenance School, in addition to the basic training given to all students, offers three types of specialized instruction: (a) Airframe and power plant technicians' course; (b) Avionics technicians' course; and (c) Structural repair technicians' course. Students are prepared for the CAA Type II license examination in one of these specialized fields, and all successful trainees graduate with a diploma and a license. Courses last three years, with the first 18 months devoted to basic training and the last 18 months devoted to specialized training.

Each class contains from 20 to 40 technicians; in 1970, 31 technicians qualified for the diploma and license. Entrance requirements include meeting physical fitness criteria set by the airline and holding of a high school diploma or its equivalent. The cost of training each technician is unknown, but the school does recruit trainees from other African countries, and their fees are $100 per month for room and board and $100 per month for tuition. For each non-Ethiopian, the total cost for the three-year course comes to $7,200.

2. The Pilots' School has a 15-month curriculum that is divided into three phases: preflight (three months), primary phase (five months), and advanced phase (seven months). Graduates are qualified to serve as second officers on jets, or as first officers on DC-3s. Last year the school produced 12 graduates. Fees for non-Ethiopians are set at $105,000 for the 15-month course; these fees are met by the sponsoring government.

Sponsorship and Financing

Both schools are divisions of Ethiopian Airlines, a corporation whose sole shareholders are the Ministry of Finance, the Commercial Bank of Ethiopia, the Ethiopian Electric Light and Power Authority, the Investment Corporation, and the Development Bank. Aside from the long-term loans directly routed through the Government to the entire airline operation, the schools receive no outside funding. With Ethiopians taking over positions as instructors in the two schools and in maintenance and flight crews, the management services agreement with TWA has become less of a factor. The rate of Ethiopianization has been especially high since 1968. In 1963, there were 11 Ethiopian training personnel and 10 non-Ethiopians; at present, there are 41 Ethiopians and nine non-Ethiopians.

Impact and Overall Cost-Benefit

The target population for the maintenance school is high school graduates; for the Pilots' School, university graduates or, more likely, high school graduates with a year or two of additional engineering training or experience. These target populations differ only slightly in status and self-image when viewed in relation to the primary-school-leaver population as a whole and the vast numbers of unemployed persons in Ethiopia. The schools are consciously interested in building an elite flight and maintenance staff for one of the country's most complex and prestigious corporations—the national airline. A logical question arises here: does Ethiopian Airlines represent overcapitalization of non-essential industry, given the urgent requirements of other sectors of the economy? The airline's expansion can be better understood if these factors are considered:

1. If rural development and self-employment are among the most crit-

ical problems to be met in Ethiopia, it is equally true that the basic infrastructure of ground communications and transport systems in the country is in extremely poor condition. Air links can help support the economies of the rural areas by providing access to markets, supplies, and close contact with the central administration. Air transport, for example, has been especially effective in opening the Southeastern region of Ethiopia.

2. The training of 78 Ethiopian pilots and hundreds of maintenance personnel locally is unique in Africa, and justifiable, given the existence of two international airports and a network of 44 local airfields in Ethiopia. Furthermore, the possible spinoff of trained mechanics to other sectors of the economy must be viewed as an extra benefit, rather than as a loss.
3. The skills provided by the highly regarded schools to other African nationals and airlines benefit both host country and other nations attempting to build air networks on the Ethiopian model.

Implications for Other African Governments

One particularly encouraging aspect of the schools has been the active recruitment of other African nationals to serve as trainees. The most consistent outside participants have been Uganda, Kenya, and Tanzania; the Sudan has also sent personnel to be trained at the Pilots' School.

Plainly, the amount of capital investment required to establish and support schools of this calibre makes their duplication extremely difficult elsewhere. The recruitment policies show that Ethiopia is aware of its responsibility to make its own highly capitalized training resources available to other countries. Thus, the important principle of pooling intra-African resources has been put into effective practice. The next logical step beyond multi-national attendance could be a degree of multi-national support for maintenance and expansion of the schools.

3. GHANA

Mancell's Girls' Vocational Institute—Kumasi

Objectives

This Institute was established in 1942 to train girls in vocational skills. It bears the name of the founder, Mrs. Rosamond Mancell, who is the Director. The Institute was set up with the following objectives in mind:

1. Providing basic or further education for, and improving the acquired skills of, young women who needed these facilities.

2. Preparing young women for marriage or business careers.
3. Endeavoring to place on a more desirable social standing the large number of young women in the society who need guidance and encouragement towards that end.

The original idea for the Institute came about as a result of discussions held between Mrs. Mancell and parents, guardians, heads of religious bodies and welfare institutions, and some young women. The first students were mainly daughters and wards of friends of the founder. They were given basic instruction in housecraft, sewing and baking. Like other private schools, the Institute has faced many problems since it was opened, including lack of funds and the difficulty of placing graduates in positions that they want.

Description of Plant and Staff

Students are housed in one modern building containing 24 make-do dormitories. There are some small apartments for four full-time teachers and three temporary apartments for five part-time staff members. There is also a reception room, one large temporary craftroom, and a large kitchen.

Accommodations for both students and staff are grossly inadequate. Plans for expansion are described below. A new site has been acquired six miles outside Kumasi and construction of new buildings is in progress. This work was originally estimated to cost about $107,600. It is now estimated that it will cost about $200,000 to complete the construction.

Present equipment includes four electric cookers, four refrigerators, and two pianos. For entertainment and relaxation, there are two television sets, two wireless sets, two tape recorders and various types of sports and gymnasium equipment.

There are 12 staff members concerned with academic aspects of the Institute. In addition to a director and a principal, there are six full-time instructors, four part-time instructors, and 13 non-professional staff. Plans call for this number to be more than doubled as the Institute expands.

Of the full-time teachers, one holds a Teachers' Certificate 'A.' Two teachers hold B.Sc.'s (Home Science) and are Peace Corps Volunteers. There is also a holder of a School Certificate (Textiles Technology) and seven others who hold School Certificate 'B' (Vocational Certificate). Four are holders of the Middle School-Leaving Certificate; one of these teachers covers catering and another is a health officer. In addition, there are teachers who hold the Arabic School Qualification. One of the part-time teachers, a UNESCO expert, holds a First Class Teachers' Certificate and there are two holders of the Teachers' Certificate 'A.' In addition, three teachers hold Master Craftsman and six hold Assistant Craftsman Certificates. The staffing situation on the whole is unsatisfactory, and as already indicated, there are plans to increase both the number and quality of staff.

Sponsorship and Funding

The Director, Mrs. Mancell, provided funds for setting up the project. Except for a subvention of $100 a term from the Department of Social Welfare, there has been no governmental support of the project. Students' fees, contributions, and proceeds from the sale of products made at the school have helped meet a portion of the recurrent costs. But the Director has continued to draw on her own resources, which at times have financed as much as 60 per cent of the Institute's expenses.

Resident students pay $52 per term for three terms to cover board and tuition; day students pay tuition of $20 per term.

Enrollment

The Institute's target population is young women between the ages of 13 and 28. There are five categories of such young women: (1) those with little primary education; (2) those with full primary education; (3) those with unfinished secondary school education; (4) those with basic skills in housecraft, sewing, laundry, baking, child welfare, midwifery; and (5) those intending to marry immediately after graduation.

In 1971, the total student population was 1,120 for the series of one-year courses. The student population has increased rapidly since the school's founding.

Incentives, Recruitment and Wastage

Prospective trainees usually apply directly to the Institute, but sometimes their parents or guardians apply on their behalf. A few trainees come as nominees of public agencies. Trainees are admitted on the basis of previous academic training or proficiency in certain skills. Final selection, however, is made on the basis of examinations that differ according to an applicant's background.

Several incentives encourage the students. Annual scholarship prizes are awarded to outstanding students. Trainees who perform creditably are given loans after graduation to set up their own businesses. The Institute also helps trainees to obtain public employment, although they are not always very successful.

The Institute's drop-out rate is about 40 per cent, primarily due to the lack of financial support for the trainees. Also, because some girls come to be prepared for marriage, they leave after acquiring the training they consider adequate for married life. A few of them are asked to leave because their performance has not been up to standard. Many are deficient in the use of English, which is the main language of instruction.

Cost-Benefit of the Project

Recurrent costs are as follows:

Rent	$ 9,600.00
Catering Expenses	18,475.50
Wages and Salaries	5,680.00
Housecraft Expenses	4,520.00
Printing and Stationery	650.40
Transportation	385.50
Security and Bank Charges	795.00
Electricity and Water	450.00
General Rates	230.00
Institute's Exhibition and Incidentals	500.00
Telephone and Postage	9,420.00
Accountancy Charges	100.00
TOTAL	$50,806.40

These expenses are met mostly through fees paid by students. Students do not receive stipends from any outside agencies and, therefore, must bear the full cost of their education, unless they are able to win scholarships. Successful students can expect to earn from $250 to $500 per annum, depending on whether they become self-employed or are employed by public agencies. It is not easy to ascertain how much students would earn if they had not taken the course, but most would be either self-employed or not employed at all.

Because employers occasionally contact the Institute for prospective employees, some graduating trainees work in public establishments. Others make their own arrangements for employment. Usually, they find it easier to establish their own businesses than to obtain wage employment.

Follow-Up of Trainees

The Institute contacts its former trainees through Annual Old Trainees' Association Conferences which are usually well attended. Also, the Director and some staff members occasionally visit the places of work of former trainees. Sometimes the Institute sponsors exhibitions of work by the trainees; these attract many former trainees.

Only about 10 per cent of the trainees who leave the Institute remain unemployed, usually those who were not successful in the course. About 60 per cent of the trainees work in skill areas for which they trained. Many of the trainees have been quite successful. About 12 of them are matrons in public catering houses, and 20 are supervisors in baking, laundry and sewing establishments. Six are in charge of training the staff in certain industries. At least 20 graduates of the Institute have founded similar vocational schools elsewhere in Ghana. In general, those who are self-employed have tended to fare best financially.

Impact and Relation to Other Institutions and Programs

The Institute's training provides the skills required for self-employment and for jobs in laundry, baking, sewing, dressmaking, designing and catering. Apart from providing skilled workers needed in public enterprise, the Institute also raises the skill level of those who are self-employed. Reports on the performance of former trainees from their employers are also favorable.

Future Plans

The present school is part of a plan for a much larger project. It is expected that the student population, now 1,120, will grow to 2,500 by 1973. Staff is expected to increase by about 250 per cent by that year. The Institute plans to build dormitories to accommodate all the boarding students, as well as to provide entertainment and recreational halls. There will also be new buildings to house 30 staff members.

The Institute also intends to buy enough equipment for establishment of a commercial school and commercial (trading) department, continuation of primary and middle schools intended for boys, girls and young adults whose primary education was handicapped, but who wish either to start again or continue, and establishment of a special advanced vocational school for housewives. Further plans call for construction of a self-operating electric plant, purchase of vehicles and creation of playing fields.

The financial structure of this institution makes its possible replication elsewhere uncertain. Trainees have to bear almost the full cost of their training, and the school receives little outside assistance. With more funds available, more and better staff could be employed and more up-to-date equipment purchased. As the wastage figures indicate, some financial assistance to trainees would be quite useful. Despite such difficulties, the Mancell's Girls' Vocational Institute is an example of an institution that is, for the most part, privately financed and that has remained in tune with the demand for vocational skills.

4. IVORY COAST

Centre de Poids Lourds

The *Centre de Poids Lourds* in Abidjan, Ivory Coast, was established in January, 1969, to alleviate a shortage of mechanics trained in the repair of transport vehicles. The Center, which is supported by the *Office National de la Formation Professionelle* under the *Ministère de l'Enseignement Technique et de la Formation Professionelle*, trains new students as transport mechanics and electricians, and, through refresher courses, upgrades the skills of those who are already mechanics.

New students, all of whom have completed at least the third year of the college of technical training and therefore have a technical background, are selected on the basis of psycho-technical tests that determine how "trainable" each candidate is. No candidate is accepted by the Center unless he has a promise, obtained by the ONFP, of a position with a company. During the Center's first year, 10 mechanics and 10 electricians participated in the program. All subsequently received jobs and many were promoted to shop supervisor after only a year.

Curriculum

The 18-month course for new students is divided into four periods. The first is a one-month initiation into the routines of repair shops and the responsibilities of those who work in them. The second period consists of 10 months of actual training at the Center. Some of the training consists of mechanical and electrical theory, but the primary focus is on working with equipment and parts that the students will encounter on the job. Students are taught in a manner that tries to duplicate the atmosphere of the workshop. In addition to learning the overall mechanics of heavy transport vehicles, students often specialize in particular equipment such as gear boxes or hydraulic brake systems. Following this period, a month is spent orienting the student to the specific enterprise in which he will be working. He then begins a final period of on-the-job training during which his employer judges the suitability of the training, determines whether the student is qualified for a certificate, and indeed whether he is acceptable for the job. If the company is satisfied with a student, its directors award the certificate, thereby compelling them to honor it in the future. If a candidate is unsatisfactory, he is given a job and a certificate of lower value, with the opportunity to be retrained later at the Center.

The retraining of mechanics and electricians usually lasts from two to eight months, and students are selected by their employers. No specific amount of formal education is required. Generally, training is in a particular area, such as electronics systems or injection systems. In addition a course for drivers in the care and maintenance of vehicles is being introduced.

Staff and Costs

An effort is being made to staff the Center entirely with Ivorians. The teachers have all been heads of workshops for heavy vehicles, and their skills are often upgraded by visits from representatives of the major transport manufacturers. The manufacturers are aware that familiarity with their machines in the repair shops contributes to increased sales. They have contributed texts, repair manuals, parts, equipment, and vehicles to the Center, thereby reducing its costs considerably.

The cost of training each student at the Center per day, including depreciation, is about 90 cents. The high salary of the teachers, who are highly skilled and work year round, contributes to this cost. Much of the cost is borne by the *Ministère*, but costs of retraining personnel are paid for by employers.

5. KENYA

Christian Industrial Training Center—Nairobi

The Christian Industrial Training Center offers a three-year program for artisans at the post-primary level and currently enrolls roughly 72 trainees per year for a total population of about 200. The program is supported both by the Ministry of Education and the Ministry of Labor, as the academic instruction leads to the Kenya Junior Secondary Examination (KJSE). The third year of training, in a specific trade, leads to the Ministry of Education exam that qualifies students for jobs as low-level artisans and junior tradesmen in factories and workshops. Each year, the best students go on to Kenya Polytechnic for higher-level technical training leading to City and Guilds Examinations.

The CITC was established by the Christian Missionary groups in Pumwani, a residential slum area of Nairobi. Gradually, the staff has been almost entirely Africanized. Per student costs run about $200 per year. The Ministries of Education and Labor contribute the bulk of staff salaries. Apparently the success of the CITC lies in its combination of minimal academic qualification leading to the KJSE and training leading to artisan qualifications.

6. NIGERIA

a. Ceramic Training Centers—Western State

Historical Background and Objectives

The idea for establishment of ceramic training centers in the Western State of Nigeria was originally formulated in the 1962–1968 Western Nigeria Development Plan. The training centers are expected to provide employment opportunities for young school-leavers, as well as for other unemployed persons in the state. After completing their course, school-leavers are expected to join cooperative production units, most of which are situated in rural areas. It is hoped that this will help to make life in the rural areas more attractive and thereby stem the influx of youngsters into urban areas. The aim of the ceramic training centers is to train students in brickmaking, pottery, and related skills. It is, therefore, hoped that youngsters will be assisted in getting employment and that building materials for low-income earners and low-cost housing will be produced. The brickmaking course lasts one year, while the pottery course lasts two years.

Incentives, Recruitment, and Wastage

In accordance with the objectives of the centers, those recruited are primary-school-leavers and those who have finished what is known as modern school, a three-year post-primary course. Those recruited are 14 to 16 years old. Trainees are selected by an interview panel composed of the secretaries of local councils and officials of the Ministry of Trade and Industry. There is no entrance examination, and about 60 per cent of those applying are admitted. Forty trainees are admitted each year for the brickmaking course and 40 for the pottery course. Since the establishment of the centers, 368 students have been trained. These students have established production units consisting of about 20 students each. There are seven production units, but it is hoped that there will eventually be 25 production units in each of the 25 divisions in Western State. At the end of the course, students are tested. About 70 per cent pass the final examination, and are issued certificates.

Incentives developed to attract and retain students include free tuition and a monthly subsistence allowance of $8.40. At the end of the program, students are set up in production units operated on a cooperative basis. The state government provides the building, the equipment, and the initial working capital to start the production units. After this, the units are supposed to be self-supporting, and the income of the members depends on how much business they can attract. Members are paid on a piece-rate basis and profits are shared or reinvested.

In spite of these incentives, there has been a drop-out rate of about 25 per cent during the course. This is traced to the fact that most of the training involves heavy manual work, such as digging and lugging of clay. It is hoped that the drop-out rate will be reduced when relatively simple machinery, to be designed by the Ministry of Trade and Industry, comes into use. Some of the newly trained students do not remain in the production units because they get jobs in the Ewekoro Cement Factory in Western Nigeria or in Ikeja Clay Industries in Lagos State. It is estimated that about 40 per cent of those trained remain in the production units, while the rest obtain outside jobs.

Staff Plant and Equipment

The ceramic training center operates in a relatively simple building consisting of one workshop, an office and a store. The equipment, such as the potters' wheel and hand-operated brick presses, is simple in design. There are plans to introduce additional machinery such as pan mixers and pug mills. The staff consists of a brickmaking officer who has a diploma in ceramics, a brickmaking assistant (with a high school diploma equivalent), a brickmaking demonstrator (with slightly more than elementary education and some experience). There are two other supporting staff workers.

Sponsorship and Funding

The Training Center's costs, as well as the costs of establishing the production units, are borne by the government of the Western State of Nigeria, which is responsible for the program, under the jurisdiction of the Ministry of Trade and Industry. The capital cost of setting up a Training Center is estimated at $11,200 ($8,400 for the building and $2,800 for equipment). The annual recurrent costs are estimated at about $10,000.

Those in the brickmaking course are thus trained at $250 per person, while the pottery course costs $500 per student. If account is taken of the fact that the government also contributes $1,400 for establishment of the production center, it is seen that both training cost and initial investment per student (i.e., creation of job) cost $320 in the brickmaking course and $570 in the pottery course. Both figures increase slightly if depreciation is added. The costs are fairly low when compared to other job creation costs ($6,000–$8,000 per job without counterpart training) in modern industry and in the highly capitalized farm settlement schemes started in the Western State.

Impact of the Program

Training capacity is for 80 students, and at most 80 trainees are turned out annually. The project's contribution to elimination of the unemployment problem is thus small. The project, however, not only creates self-employment for those remaining in the production units, but also trains people for industry. Those in the production units earn an estimated $16.80 per month. Although low, this sum is reasonable when compared to cash incomes in rural areas and, of course, it is preferable to unemployment. Those who succeed in getting jobs in industry may earn twice as much.

Conclusions

This project attempts to train youths in a rural setting for a relatively new type of industrial activity geared to basic national needs. By using simple machinery and tools (the so-called intermediate technology), training and job creation costs are kept reasonably low. The program not only involves training but is closely tied to the creation of new jobs. There is room for further expansion but staff shortages and limited financial resources are obstacles to further growth. Scholarships for training staff and assistance in providing simple machinery, or in the design of such machinery, would help relieve the bottlenecks. Expansion of the project will eventually be limited by local demand for bricks and pottery products. At the moment, however, demand is still unexhausted.

The transferability of this type of project depends primarily on the availability of clay, the essential raw material used in the training. Because some of the project's machinery has been locally designed, one would have to determine whether it could be successfully duplicated or modified.

b. Domestic Science Center—Lagos

The inability of primary-school-leavers to secure wage employment and the fact that most girls get married without any training led to the establishment more than 12 years ago of two Domestic Science Centers in Lagos. Later an adult evening class was established to teach market women and housewives how to read and write.

In their sixth year, primary school girls attend the vocational course once a week. It is compulsory for all schools in Lagos to send their pupils to the Centers for training in needlework, dressmaking, laundry, housecraft, cooking and child care. The course, which lasts for one school year, focuses attention on the fact that some girls, after completion of elementary schooling, do not continue their education. Because these girls are already about 12 or 13 years old, knowledge about their roles as housewives and mothers would be desirable. Early exposure to vocational skills would also be an inducement to the girls to pursue further training.

The adult evening class is more than a literacy course. It is also designed to help housewives develop a skill. Subjects taught are dressmaking, millinery, machine embroidery, cookery, and home management. Students spend two years in this course and pay $8 per subject. There is a written examination after the course and diplomas are issued to successful candidates.

One Center on Lagos Island has a permanent building; the other Center in Yaba has a temporary building. The Lagos Island Domestic Center is located in a large building with eight classrooms, offices, a storeroom, a laundry, a kitchen, and washing and toilet facilities. The Lagos Government has provided sewing machines, knitting machines, electrical stoves and ovens, and laundry and washing machines.

The primary school vocational course staff members are paid by the Lagos State Government; the adult evening class is supported by students' fees and by contributions from the Federal Women's Home Science Association. Lagos State Government pays for maintenance of the Center; pupil trainees only pay for the materials used in their courses. The adult evening class is staffed by part-time teachers. There are 10 teachers at the center in Yaba; there are eight teachers at the Lagos Island center.

The prospect of taking home materials finished in the course helps keep the primary school girls interested in the course. For the adults, the cost of the course and the hope of earning a diploma that will enable them to get a promising job serve as incentives for finishing the course. The principal agreed the course was too short to give pupils sufficient training for full competency, but the introduction to vocational skills makes it easier for pupils to get an office job and opens an avenue for further individual development in the subjects already learned.

The Domestic Science Center is an attempt to vocationalize formal primary education. Moreover, bringing all primary school girls in Lagos (many thousands of girls) to one Center helps minimize the cost of vocational training by avoiding proliferation of staff and duplication of capital equipment. Use of the same facilities by adults in the evening further intensifies the utilization of the plant. The institution appears to be easily transferable within or outside Nigeria.

c. Nigerian Drivers' and Maintenance School—Ikorodu Road, Lagos

Historical Background and Objectives

In 1962, the Nigerian Motor Drivers and Allied Transportation Workers' Union took a serious view of the increasing demand for motor drivers. The union was also concerned about incessant road accidents, often resulting in fatal casualties, and so it decided to establish a motor driving school. In 1963, the first apprentices were admitted to the school, which is located on the outskirts of Lagos.

The objective of the school is to train drivers who are literate and efficient. Students who complete the course are expected: (1) to read road signs; (2) to read meter and engine records of their vehicle; and (3) to handle minimum mechanical breakdowns when the help of a skilled mechanic is not available.

The school has one course, Driving and Vehicle Maintenance in theory and practice. The course lasts three months, and the school runs three sessions annually. During the month between sessions students take their initial driving tests or repeat tests if they have failed. Three different motor engines are used to teach the apprentices the rudimentary workings of a vehicle engine.

Staff, Plant and Equipment

The school started with one building on five acres of land. The building, which has not been expanded, includes a workshop, a classroom, an office attachment, a storeroom, kitchen and toilet facilities and a petrol filling station owned by the school. The school has a 1,700-foot-long tarred driving range and a reversing track.

The school started with two second-hand Land-Rovers; it presently has 11 training vehicles, one staff car, and three motor engines for teaching vehicle maintenance. The Director of the school is also General Secretary of the Nigerian Motor Drivers and Allied Transport Workers' Union. He is assisted by an American Mechanical Engineer, who is the Chief Instructor at the Center. The school's four driving instructors hold Driver Mechanic Certificates Grade One. Other staff includes one administrative secretary, two gardeners, and two watchmen.

Sponsorship and Funding

The school is sponsored by the Nigerian Motor Drivers and Allied Transport Workers' Union, which provides part of the funds for running the school. International Labor bodies such as the Austrian Federation of Labor, the

International Transport Workers Federation, AFL-CIO (the major American labor organization), and the African-American Labor Center, have also contributed substantially. Fees paid by each student, about $10 per year, and tuition, $56 per year, from apprentices constitute a third source of revenue. The Center, which has an intake of about 120 driver apprentices each year, receives no financial assistance from the Nigerian federal or state government.

Target Population, Recruitment and Wastage

Persons under the age of 21 cannot be issued a driver's license in Nigeria, hence underage apprentices are not admitted. English is the medium of instruction at the Center, and those who do not understand English cannot be admitted. Still, the course attracts a wide range of applicants: school-leavers who are unemployed; salesmen who want to upgrade their posts by becoming driver/salesmen; and car owners, or those preparing to buy a car, who want to learn to drive. The record of admittance of driver trainees since inception shows the popularity of the course. Between 1964 and 1971, 825 students attended the course. The school now takes 40 students per session. Although the school is urban centered, apprentices come from all parts of the country to take the course.

The promise of getting a driver's license after three months of training is the greatest incentive the school offers its trainees. Secondly, apprentices are conveyed to a central point in the town where they can take buses to their respective homes. Thirdly, the chances of an apprentice securing a job through the school are very high; commercial firms, government departments and industries often turn to the school for assistance in hiring.

According to the Director of the Institute, there is little or no wastage, since those who fail the driving test receive two weeks of additional training that usually enables them to pass. Although any apprentice is free to withdraw at any time, there have been no cases of students dropping out because of failure to pass the driver's qualifying test.

Cost-Benefit of Project

The school's annual cost is estimated at $25,000. This doesn't include two new vehicles bought at $7,000 each; the school's five acres of land bought in 1966 at $18,160; buildings estimated at $16,800; and the cost of building the driving range. Money collected from students does not offset the cost of their training, which is $210 per student. But students' potential earnings after graduation are substantially more than the private or social costs of their training. A driver from the school earns at least $42 per month. Some who are offered jobs as salesmen/drivers with manufacturing or distributing companies earn more than $56 monthly, excluding commission on sales. Apart from the employment generated by the project, the benefits derived from reduced accidents are substantial, thereby creating a very favorable cost-benefit calculus.

Though it is not compulsory, most of the school's graduates remain in contact with the school and join the Nigerian Motor Drivers and Allied Transportation Workers' Union.

d. Opportunities Industrialization Center—Lagos

The scarcity of urban employment, which affects virtually all the cities of Black Africa, is especially severe in Lagos. The population of Nigeria's capital has mushroomed from 267,000 in 1952 to more than 1,200,000 in 1970. A desire for economic improvement has clearly been the dominant motive behind this massive population drift. But at least 80 per cent of Lagos' new residents find themselves underemployed or with no job at all. Although these new residents live in marginal conditions on the urban fringe, they are reluctant to abandon hope and return to the rural areas.

The Opportunities Industrialization Center is a privately run, community-based response to this problem. The Center is a pilot project based on a successful program that originated in Philadelphia. OIC-International also has a branch in Accra, Ghana, and plans are under consideration to expand to Kenya, Ethiopia and several other African and Pan-American countries.

The Lagos OIC traces its origin back to 1966, when a group of concerned Nigerians came together to discuss the social and economic ramifications of Lagos' growing unemployment problem. The group was assembled by Dr. Folorunso Salawu, a Lagos physician who had read about OIC's community-initiated manpower training program in a *Reader's Digest* article. Dr. Salawu believed that if private citizens in the United States could generate a program to deal with the effects of unemployment, then Nigerians could do the same thing.

What captured the interest of the Lagos group was that (1) the OIC program was created and developed by a cross-section of private citizens like themselves; (2) the program was not only structured to provide technical training, but also concerned itself with the attitudinal problems of the poor and unemployed; and (3) the program attempted to train people in the shortest possible time for work that was already in demand in the labor market. After Dr. Salawu had corresponded with the Rev. Leon Sullivan, OIC's founder, the latter visited Lagos in March, 1969. As a result of that visit, OIC International requested funds from the U.S. Agency for International Development to assist in establishing a center in Lagos.

AID complied with the request, and in fiscal 1970 earmarked $381,000 for the OIC/Lagos project. An additional $69,000 was budgeted for fiscal 1971. The following description is based largely on a paper written in 1971 by Thomas Morgan of the Woodrow Wilson School, Princeton University, and the International Council for Educational Development.

Description of Project

The OIC project is supposed to provide training in skills that are important in Nigeria, and by so doing to prompt the development and creation of small businesses and the Nigerianization of these businesses. The OIC/Lagos Center will focus on the training and retraining of the unemployed, the underemployed, and those who are considered unemployable. Its fundamental concentration will be on development of the whole man—his motivation and attitudes as well as his specific skills. Job placement, which is built into the OIC program, is the ultimate objective. Participants who have acquired the necessary skills are assured a job, and are said to be equipped with the motivation needed to perform efficiently.

The OIC training program's initial target group is the young adult population, which consists primarily of school-leavers who range in age from 16 to 20 years. In most instances, these youths are unemployed and untrained. The goal for the first four years is to train and place 300 persons in auto service mechanics, office and business machine repair, refrigeration, service industries, secretarial science, and electronics.

American technical personnel have been provided by OIC/International to formulate and initiate the training program. Contracts will be made with the governmental, industrial and business communities to identify vacancies and employment requirements. The OIC/Lagos program is based on the National OIC program, and includes general orientation, prevocational training, skills training, job development, job placement, and follow-up.

The objectives of the program are:

1. To meet the needs of those who have a basic education but cannot advance in job positions.
2. To meet the needs of those who have completed their formal-school training but have no marketable skills.
3. To help those who cannot continue their education because of financial hardships.
4. To develop a relationship with the industrial community so that the OIC trainee will be provided with job opportunities.
5. To provide training that meets the needs of existing or developing industry.
6. To eventually develop a management training project to assist OIC trainees and others in establishing and managing their own businesses, or in finding upward mobility in existing firms.
7. To assist in the development of new businesses and industries.
8. To assist demobilized armed forces personnel in learning a trade.

Prevocational Feeder Program

The prevocational feeder program is designed to provide the trainee with basic educational upgrading to enable him to succeed in later skill training. The feeder program includes motivation, recruitment, intake, assessment, orientation, counseling and referral. Counseling and instruction is geared to help the trainee choose an area of training. The feeder curriculum will consist of:

1. Orientation to specific training and job category
2. Communications skills (including remedial reading)
3. Computational skills
4. History of Africa and Nigeria
5. Personal development
6. Job-finding techniques
7. Consumer education
8. The world of work
9. Pre-employment preparation
10. Techniques of taking pre-employment examinations

Vocational Skill Training

The skill training program is designed to prepare trainees for existing jobs. Its offerings will change in relation to supply and demand as indicated by the Job Development Section. The initial program consists of the following skill areas:

1. Auto service mechanics
2. Secretarial service
3. Electronics
4. Office and small machine repair
5. Service industries
6. Refrigeration

Job Development and Placement

Job development and placement is a key element in the OIC program. Job development specialists seek openings that relate specifically to the courses offered. They also provide information that is useful in structuring curriculum and course content. Trainees' pre-job preparation includes familiarization with applications, interview techniques, and testing methods. The goal is to place all trainees at their highest possible skill level.

In 1970–71, the OIC/Lagos staff, both Nigerian and American, attended a three-month training course that was given in two parts. The first part was a series of short orientation courses at OIC/International's central office in Philadelphia. The second part of the training program was conducted on the job in Lagos. During this period, U.S. technicians assisted the Nigerian staff in curriculum development and in methods of teaching; the Nigerian staff helped the Americans in adapting the OIC approach to the Lagos environment.

The OIC/Lagos Center took in its first feeder class of 54 students on March 1, 1971. An OIC/Lagos board that includes members from the private sector, government, and local community has been established. In the spring of 1971, a field study of the project was made by Community Services, Inc. of Philadelphia, on behalf of OIC/International.

Evaluation

It is much too early to appraise the success of the project, but the objectives of the OIC program are well suited to Nigeria's development needs as expressed in the 1962–68 development plan. This plan called for the improvement of technical vocational education in order to increase the capacity and productivity of the country's middle-level manpower. OIC's approach and curriculum, rooted in non-formal training, are unique for Nigeria. The program closely relates vocational education to existing manpower requirements. Furthermore, the OIC approach involves the private sector (business and industry) in the training process.

OIC/Lagos is a valuable experiment in non-formal education. If it is successful, it will show how a practical, job-oriented alternative can supplement, or replace, the traditional forms of vocational education that presently exist in many African countries. In future evaluations of the project several questions will have to be answered:

1. Can the OIC approach, which has proven successful in the U.S., be adapted to a labor market where jobs are scarce and there is a surplus of labor?
2. Can the OIC approach be used in rural development programs? If so, how could it be implemented by a government agency (the Department of Community Development) or a private agency (cooperatives, the Economic Development Corporation)?
3. Can the OIC set up projects in other parts of Nigeria—especially the north, which is behind the south in every category of economic development?
4. Can the benefits accruing from such a small number of jobs outweigh costs and offset the possible danger of stimulating more unemployment by increasing the flow of entrants into the labor force?

e. Textile Training Centers—Western State

Historical Background and Objectives

The textile training program in the Western State of Nigeria was started in 1963 as part of the rural development program of the 1962–1968 Western Nigeria Development Plan. The basic objective of the program's three centers was to provide employment for primary-school-leavers who had little prospect of obtaining employment or of furthering their education. It was hoped that at the conclusion of the training, youngsters would be placed in production units, many of which would be located in rural areas. Thus it was hoped that the influx of youth to urban areas would be reduced. Moreover, it was believed that the newly trained youth would be engaged in an industry, textiles, that was serving basic national needs. It was also felt that textile production costs could be lowered by using the new methods the trainees were to learn.

Incentives, Recruitment and Wastage

In accordance with the program's objectives, those recruited are primary or secondary-school-leavers in the 14–16 years age group. Recruitment is made on the basis of interviews conducted by a panel of local councillors and officials of the Western State Ministry of Trade and Industries. There is no entrance examination. Forty trainees are admitted each year to each of the three Training Centers. Originally, those recruited into the program took a one-year course in the skills of textile production, weaving and dyeing. They used simple manually operated machines that were designed by the Industry Division of the Western State Ministry of Trade and Industries. On the basis of experience gained from these earlier programs, it is now believed that training can be shortened. In September, 1971, the textile training program was revised to last for only six months. At the end of the course, students are tested and the successful ones receive certificates.

Incentives designed to create and retain interest in the program include free tuition as well as a subsistence allowance for each student of $8.40 per month. At the end of the course, successful candidates are set up in production cooperatives called textile production units. There are 32 in operation in the Western State. Because the government supplies funds for establishment of the cooperatives, as well as for the program's building, its textile hand-weaving machine and dyeing shed, plus some initial working capital, trainees are assured of a job. Youngsters installed in these cooperative units are supposed to support themselves from their output.

The government assists the production units by procuring markets for their output and providing them with raw materials. Although the cooperatives are capable of producing a wide range of textile products, they have so far concentrated on production of school uniforms. The production units, as the cheapest supplier of uniforms, are assured of a market. The government helps by delivering the uniforms. In spite of these arrangements, some trained textile workers have deserted the production units for the large textile mills or the army, both of which pay higher salaries. This has resulted in the closing of about 10 per cent of the original units.

Staff, Plant and Equipment

The program's emphasis is on cost reduction. Thus both plant and equipment are simple. Equipment was all manually operated until new semi-automatic machinery was designed by the Ministry of Trade and Industry, Western State. It is estimated that the new equipment will boost per day output by at least 33 per cent, and possibly by as much as 133 per cent, once its use is fully mastered. Each training center has four instructors and two administrators.

Sponsorship and Funding

The textile training program is sponsored and funded by the Government of the Western State of Nigeria. Capital costs of each training center are about $11,000 per year. Annual operating costs are about $10,000. Per student operating costs equal about $250 per year. In September, 1971, when the training period was reduced to six months, per student training costs were reduced by about $100. The cost of establishing a textile production unit is estimated at $2,800 for 25 students, or $112 per student. Total training and job creation costs amount to $250 per student. This figure increases slightly, if depreciation of the center's building and equipment is taken into account. These costs are considered quite low when compared to alternative methods of creating employment in the modern sector.

Impact of the Program

About 800 jobs have already been created as a result of this program, and about 120 new jobs are being created annually. Compared to the requirements for reducing youth unemployment, this contribution may seem small, but it is still significant. On the basis of daily production of about six yards, workers in the production units were earning $16.80 per month. With the new machines introduced in September, 1971, daily production reached a minimum of eight yards and is expected to build up to 12–14 yards. Monthly income could therefore be increased from 33 per cent to 133 per cent in the near future. At these levels, monthly income would be competitive with salaries paid by industry and the flight to the cities might be reduced. Furthermore, the school uniforms produced by the textile production units undersell comparable factory-produced material by 35 per cent. The school authorities seem satisfied with the product, and are asking for more, while factory managers grumble. The managerial and transport assistance of the Ministry of Industries is partly responsible for the cost advantage, but even if the cost of such assistance is discounted, the textile production unit would probably still have a cost advantage. If this program could be expanded, the cost of textiles to average- and low-income people might be reduced. The program has also contributed to the training of some skilled workers for major textile mills.

Conclusion

The project is innovative in several respects. The attempt to use intermediate technology, partly in rural areas, to produce non-traditional fabric is new to most African countries, although it has a long history in Asia. The result is a low cost for creating an industrial job and a close link between training and job creation. On a large scale, such projects would be helpful in creating jobs for school-leavers and providing locally made textiles at a reasonable cost. Such programs would also reduce imports of finished textiles and of expensive equipment for local mills. The project in Western Nigeria could be transferred to other areas in Nigeria or elswhere in Africa. A similar program is in its initial stages in Uganda, though it was begun without knowledge of the Nigerian experience. External assistance could be given in the training of instructors for such programs, especially by Asian countries with long experience in this type of work. Assistance could also be given in the design of even more efficient, yet inexpensive, machinery. Finally, aid could be given by supplying new materials such as yarn and dyes.

f. Vocational Training and Common Facilities Center—Otta

In 1969, the Western State Government established the Vocational Training and Common Facilities Center with the assistance of the International Labor Organization. The project aimed at stopping the drift of school-leavers to cities in search of wage employment. It was hoped that demonstrations of modern equipment and machines to artisans would encourage them to form partnerships to raise the necessary capital for investment in large-scale production.

Courses in woodworking, metal working, and building were planned for the Center. But in mid-1971 only the woodworking course was in progress. Workshops have been built for the woodworking artisans who are expected to pay a rental fee of $3 per month during the year-long course.

The course is non-residential and student-artisans are expected to provide their own accommodations. Staff quarters are planned. Machinery and other equipment is supplied by the Western State Government. Staff instructors supervise the workshops.

The project is sponsored by the Western State Government. Of the $1,265,500 spent on the Center in mid-1971, $600,000 was provided by the State Government, with the balance coming from the ILO.

This program is aimed at established artisans, presently carpenters, who have apprentices working for them. Although located in the rural area, applicants from any part of the state are eligible. There are 18 artisans taking the woodworking course. Because of a large number of applicants at the time of first recruitment, the West African Examination Council was asked to conduct a test and select candidates for the course.

The program is still experimental, having been established in August, 1970. The result of the effort may take some time to be evaluated.

7. TANZANIA

a. Msimbazi Study Group—Dar es Salaam

The Msimbazi Study Group is run by the local Catholic Church through the efforts of a Ceylonese, Mr. Latif. Trainees are primary-school-leavers under 18 years old. They are taught carpentry and poultry keeping as well as English, Swahili, bookkeeping and math. The aim of the program is to teach trainees how to earn money by making and selling articles. In 1971, there were about 22 pupils in the group. Although the course is structured for three years, most students usually stay for only one year and then either find a job or return to formal schools. Of the 20 pupils who have completed the course in the last two years, about half have gone on to secondary schools, vocational training or technical colleges. Others have been accepted for work in garages, or have continued in the agricultural work that they learned at the Center. Because of the training in English, Swahili, bookkeeping and math, primary-school-leavers who would not otherwise have qualified to go on to secondary schools are often allowed to continue their formal education. Using basic carpentry tools, the students are taught to make furniture and sell it.

Other income is derived from the sale of chickens that the students learn to care for. Training is given six days a week, with two hours devoted to carpentry, an hour and a half to poultry keeping, and an hour each for the other courses.

Students live in their families' homes in town, and are expected to pay $3 a month for training. In fact, they hardly ever pay and most of the funds for running the course come from the sale of furniture and poultry, and from contributions from the Catholic Church.

The school's primary problem is lack of funds. The project is worthwhile because it is inexpensive. Although it does not offer high-level training in specific skills, it does seem to produce work-oriented attitudes, as well as an ability and familiarity with tools, and a will to continue either with formal or vocational education or with the search for employment.

b. National Industrial Training Council

The National Industrial Training Council of Tanzania offers two types of training for craftsmen. The first is vocational training given at the Training Center at Dar es Salaam. The second involves evening courses given at 20 different centers throughout the country to provide craftsmen with the additional theoretical and practical knowledge necessary for them to pass the Trade Certificate examinations of the country.

Vocational training is given to members of the National Service who, after three months of basic training, are chosen on the basis of aptitude and psychological tests. One hundred and sixty trainees are recruited each year from the National Service. Trainees receive instruction in electricity, carpentry, masonry and vehicle mechanics. Each of these courses, which last for 12 months, is about 40 per cent theoretical. The program has 27 instructors, most of whom have taught in trade schools or in industry for more than five years, and have technical school backgrounds.

The second year is spent in on-the-job training. Jobs are located by the Center's In-Plant Department, which analyzes the needs of industries. After a year of on-the-job training, students take their Grade-3 trade test. Most students pass this test, and 90 per cent of them are accepted to continue in the job at which they were trained. Other training consists of an evening course to upgrade the skills of employed artisans by instructing them in theory that they may never have been taught in previous training. Courses are taught two nights a week for 16 weeks. At the end of the course, the trainee is ready for either the Grade-3 or the Grade-2 Trade Test. Of 1,041 students who attended evening courses between January and May of 1971, approximately 88 per cent finished the course. Before this training was offered, only 40 per cent of the tradesmen in Dar es Salaam were passing the trade exams. Now, however, 62 per cent of the tradesmen who take the test score a passing grade. Administrators of the program are greatly encouraged by this increase, especially since the program has only been in operation for a few years.

The trades covered by this training are motor vehicle mechanics, fitting and turning, electrical installation and repair, carpentry, masonry, welding, painting and sign writing, auto-electrical work, plumbing, pipe fitting and technical drawing. Instructors attend a two-month training course at the Center in Dar.

Fees are $4.25 for the course that is designed to help students pass the Grade-3 test and $5.75 for the Grade-2 test course.

Although the courses given in the vocational section of the National Industrial Training Center are not much different from those in other countries, the high rate of placement marks this program as more successful than most. Partly, this success is due to the industrial analysis conducted by the In-Plant Department. The project's success also seems to indicate the value of government support and close ties with the Labor Department, factors that may interest other countries wishing to improve their vocational training.

Although they do not create new jobs, the evening courses are significant because they increase the output of those already employd. They also help make goods and services more compatible with modern standards. The care that is taken to select qualified teachers and to continually upgrade them indicates that the Government has a high regard for the Training Center and for the work of tradesmen.

8. TUNISIA

Pre-Apprenticeship (Pre-Vocational) Training Centers

Objectives

The goal of the "Pre-Apprenticeship" (or Pre-Vocational) Centers established throughout Tunisia is to help primary-school-leavers develop the special skills and attitudes necessary for productive employment or further vocational training. Although in most cases specific skills are not taught, the program attempts to develop general manual dexterity and familiarity with the tools and methods used in many trades. The project also aims to help school-leavers discover or regain confidence in their capabilities. Furthermore, the Centers' training is designed to develop attitudes consistent with modernization efforts. These attitudes include the following beliefs: that one should take advantage of newly arising opportunities; that one should seek more efficient methods of doing things; that greater productivity results from cooperation and from sharing scarce resources such as tools or land; and that planning one's activities can produce better results.

Structure

Tunisia's 68 Pre-Apprenticeship Centers are administered by the National Office of Vocational Training and Employment (OFPE), under the Secretary of State for Youth, Sports and Social Affairs. There are several types of centers: 44 are known as Cycle A Centers and provide general training; 11 are Cycle B Centers and give follow-up training in a particular trade; 10 are devoted strictly to pre-apprenticeship in hotel work; and three give introductory training to students who are in their last years of primary school.

The Cycle A Centers, as suggested by their number, receive the greatest emphasis. For 11-month periods, these Centers train an average of 49 to 60 boys between the ages of 14 and 18 in general manual skills. Other courses include Arabic, French, arithmetic, civics and physical education, all of which are related, in various ways, to the practical instruction. The civics course, for example, uses slides and other audio-visual materials to teach adaptation to modern life and society.

Between 50 and 70 per cent of training at the Cycle A Centers is allocated to practical instruction. At the beginning of the year, trainees learn measuring, hammering, sawing, tracing, tool care and inspection of products. Later trainees apply these basic skills, while rotating between introductory courses in carpentry, electricity, building, soldering, sheet metalwork, forging and pipe-fitting. At the end of the training, students make projects in one or more of the skill areas studied. In 1971, the Cycle A Centers trained 2,404 pupils. In the eight years that the Centers have been operating, 72 per cent of their graduates have been placed in jobs, the great majority in apprenticeship positions and the rest in vocational schools.

The Cycle B Centers were initiated in 1970 by the OFPE to provide an alternative for Cycle A-leavers and to train 17-year-old boys who were not in formal vocational schools. Each of the Cycle B Centers gives six months' training in one of the following: masonry, carpentry, sheet metalwork, soldering, sanitation plumbing, electrical work and automobile mechanics. Despite the relatively short duration of this training, most Cycle B-leavers have thus far been placed in jobs. A total of 195 students are currently enrolled in Cycle B Centers. Students who come to these centers from formal schools usually have completed two years of secondary-school work.

Placement

The 10 hotel training Centers are the most successful of all the Pre-Apprenticeship Centers at placing trainees in jobs. All 440 students currently enrolled have been guaranteed placement in hotel apprenticeships. The demand for trainees is so great that the Center's enrollment is expected to double in 1972. Trainees in the hotel course learn the basic skills and conduct required of waiters, chambermaids, desk clerks and bellhops.

Five pre-vocational training Centers for girls teach job-oriented manual skills such as cardboard cutting and folding, weaving, sewing and hair-setting. These centers also give home-oriented instruction in nutrition, child care and cooking. Instruction in Arabic, French and civics is also incorporated in the course. These subjects are taught with a view toward building attitudes compatible with productive employment in a modernizing society. Graduates of the courses have found jobs in electronics plants, textile companies, and hairdressing salons.

Staff

Each Cycle A Center has one technical teacher and one general instructor; the Cycle B Centers have one teacher for each special skill course offered. The general instructors must have completed secondary school, and technical teachers must have completed technical training in a formal institution. In Cycle B Centers, each instructor is required to have a trade certificate in the skill-area he teaches.

All instructors in the various Centers must undergo a training course lasting from one year to 18 months at an Institute established by the OFPE. The training course stresses pedagogical methods for combining theoretical and classical subjects, such as math and Arabic, with practical skills. Trainees study psycho-motor methods of teaching manual skills. Female teachers for the girls' Centers spend four months working in various industries where they compile records of positions open to women. Many of the female teachers have never had a wage-earning job before, and this period provides them with the experience and qualifications for preparing girls for employment.

Equipment and Costs

Some observers have noted that the Pre-Apprenticeship Centers in Tunisia utilize their equipment more economically than similar projects in Africa. The Centers are generally located in older buildings rather than in newly constructed plants. Simple tools, rather than elaborate showcase equipment, characterize the training scheme which aims to impart a basic knowledge of several trades. Some Centers operate morning and afternoon shifts to maximize the trainees' access to tools. Students are divided into small groups and tools are shared. Proper care of tools is an integral part of the curriculum.

The average per capita recurrent cost for a 40-student Center has been calculated at $306.50. Average per capita cost for a 60-student Center is estimated at $236.40. UNICEF provides equipment as well as scholarships for teachers to be trained at the OFPE Institute in Rades, Tunisia. Most of the balance of the costs comes from OFPE funds, which derive from a two per cent salaries tax levied on Tunisian industries.

General Comments and Evaluation

Considerable criticism has been leveled at vocational training schemes for their failure to place specially trained people in skill-related jobs. The weakest link in most Tunisian pre-vocational training is finding jobs for those who complete the course. Nevertheless, Tunisian Pre-Apprenticeship Centers have maintained a record of successful placement. The OFPE now keeps track of apprenticeship openings throughout the country, and preference is given to youths who have completed training at the Centers. This relatively new policy, which cuts across regional lines, will probably increase the rate of placement.

National coordination of job location has strengthened the program, and sanction by the Government of Tunisia has increased the Centers' prestige. More important, perhaps, is the viability of the concept of pre-vocational training vis-a-vis traditional vocational training. By teaching the trainee general skills and job attitudes, the program produces work-oriented and work-capable graduates who can adapt themselves to fluctuations in the labor market, rather than individuals highly skilled in only one trade.

The future success of pre-vocational training in Tunisia will depend in part on a restoration of the balance between urban/modern sector training centers (of the type described here) and schemes designed to train people for employment in the rural sector. The rural centers, though still in existence, have lost much of their efficacy since the failure of Tunisia's cooperative movement in 1969.* The problems of the rural centers indicate clearly the link between training programs and sound economic policies. Without the latter, the former cannot be expected to cure the ills of unemployment and underutilization of human resources. Without a healthy rural training program, the rural/urban migration will continue to place an unmanageable burden on urban pre-vocational programs.

9. UGANDA

Mukono Handloom Weaving Project

This project is designed to train young people in the technology of handloom weaving. After completion of their training, students are expected to settle in cooperative units in their villages. It is hoped that the government will provide the initial capital and operating costs of the cooperative units, which are attempts to stimulate the increase of cottage industry in the rural areas. If the government also assists the cooperatives in getting orders for products, it will be repaid after the cooperative's goods are sold.

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* For a description of rural pre-vocational centers (*Centres de Formation Préprofessionelle des Jeunes Ruraux*) prior to the 1969 upheaval, see ILO document Report to the Government of Tunisia on Rural Training in Tunisia, OIT/OTA/Tunisia/R.23, Geneva, 1970.

In 1967, the Indian Government, as part of its aid program, sent three Indians with 20 looms to Uganda. Two of the Indians have since returned to India. The first 23 students have completed two and a half years of training. Originally, training was to have been much shorter, but administrative problems have thrown the project off schedule. Based on years of successful Indian experience, the project is conceptually sound, and a review is now being conducted to insure that more effective machinery for the program's implementation is found. When the new plans become operative, the program should have a favorable influence on the rural economy. Of course, the project's impact will build slowly and will depend on how large a program is mounted.

The basic idea behind this project is similar to that of the Nigerian textile training program discussed earlier (see page 22). Both projects plan to introduce new equipment in the near future. The Mukono project staff plans to introduce semi-automatic Jacquand looms that could increase daily production by as much as 10 to 15 yards. A new machine, also semi-automatic, that will be introduced in the Western Nigeria project will make possible a per-day production of eight to 14 yards. Further comparison of these two projects is needed.

10. ZAMBIA

Luanshya Youth Self-Help Project

The Luanshya Youth Self-Help Project developed entirely from local enthusiasm and sensitivity to the needs of youth in the community. It emerged from a convention held in the town of Luanshya to discuss local problems. Among the delegates were representatives from local mine management boards, the Zambian Mine Workers' Union, and the Youth Council of Zambia. The resultant program aimed to provide training in basic skills to unemployed grade VII school-leavers.

Most of the funding for the project was to come from contracted work. A building for the Training Center was provided by the Roan and Mpatamatu Mine Township Board. The Board also donated an old van and $300 a month for the cost of materials and equipment. An additional $3,000 for renovation of the donated building was included, as was classroom furniture. Other groups offered contract work and provided personnel to assist in administering the project

Age limits for participants (only boys were admitted to the program) were set between 17 and 24 years. In the first year, which began in August, 1967, the 200 available positions were quickly filled. Each trainee was charged a fee of $1.50, but was to receive some pocket money, if it became available from contracted work projects. The course was to cover a year's training in the broad categories of engineering, building, and agriculture. The youths were taught the rudiments of carpentry, metal and wrought iron work, upholstery, building, brickmaking, and concrete mixing.

In addition to learning these skills, trainees undertook contracted projects such as painting houses, clearing streets, and digging drains. They also cultivated vegetable gardens. In the first year of the project's operation, these contracts and the sale of vegetables resulted in a credit balance of about $5,400. By the end of the first year, 200 pupils had found jobs in local firms, including the mines that had helped sponsor the project. Others formed three different cooperatives around skills they had learned.

The project is significant because it demonstrates what can happen through local initiative and enthusiasm and without central government control. If attempted elsewhere, success would depend largely upon the existence of industries willing to provide encouragement, facilities and contract jobs.

PART
II

Industrial and Vocational Training: On-the-Job and Skill-Upgrading Programs

MAJOR CASE STUDY NO. 1

NIGERIA: VOCATIONAL IMPROVEMENT CENTERS (VICs)

Historical Background and Objectives

In January, 1965, the Ministry of Trade and Industry of the former Northern Region of Nigeria, working closely with the Ministry of Education, established the Business and Apprenticeship Training Center in Kaduna. The ideas behind this two-year pilot project originated with the late Dr. Adam Skapski of the Ford Foundation and were developed further by William Gardner, a vocational education specialist with many years' experience in Nigeria. The Ford Foundation helped start the project with a grant of $116,000. Workshop and classroom space was provided at the Kaduna Technical Institute by the Northern Regional Ministry of Education. Additional equipment was purchased with funds from the Ford Foundation grant. In 1965, courses began in motor mechanics, building and carpentry.

The center was to provide vocational training for local artisans and for small business entrepreneurs and their workers. Specific goals were:

1. Improving trainees' practical skills and introducing them to modern techniques and practices in their trades;
2. Assisting the small-scale entrepreneur to improve the efficiency of his business;
3. Encouraging those trainees with demonstrated potential to establish their own businesses.

Attainment of these goals involved imparting skills in a particular trade and in general studies—English, arithmetic and bookkeeping. The course was designed to enable trainees to attain a level equivalent to the Nigerian Federal Ministry of Labor Trade Tests in Grades I and III, and to pass these tests when possible.

Extension of the Project

At the conclusion of the pilot project the former Northern Regional Government's Council for Vocational and Technical Training (composed of all the permanent secretaries) reported that it was highly impressed by the work of the Kaduna center. The Center had demonstrated how available facilities and staff could provide vocational training at a comparatively low cost. Accordingly, the Council voted to continue the project and to extend it to other towns in the Region. These new centers were named Vocational Improvement Centers to emphasize their orientation. The pilot project at Kaduna, however, retained its original name—Business and Apprenticeship Training Center.

As of late 1971, there were 12 Vocational Improvement Centers in Northern Nigeria, two in each of the six states in the former Northern Region.* The 12 VICs, all established with Ford Foundation assistance, have had varying degrees of success. Other state governments in Nigeria, with assistance from the Ford Foundation, have also established or are establishing Vocational Improvement Centers.

Although we were unable to visit all 12 centers in Northern Nigeria, we did compile a detailed description of two of them—the Business and Apprenticeship Training Center (BATC) in Kaduna (first of the 12 centers) and the Vocational Improvement Center (VIC) in Maiduguri (one of the highly regarded newer centers). These two centers generally reflect practices in all 12 VICs. Performance of other VICs, however, does not quite match standards at Kaduna and Maiduguri, where success was largely attributable to the dynamism of the organizers. The size of Kaduna, with its industrial and governmental complex and its concentration of relatively high income, also contributed to that project's success.

Target Population

The VIC program is directed mainly at the lower grade of industrial worker, artisans employed by the government or private companies or those who are self-employed or apprenticed to small entrepreneurs. Although completion of elementary school is preferred, it is not compulsory. A minority of trainees who started the programs in Kaduna, Maiduguri, and elsewhere were illiterates. Entrants must have been engaged in their trades, businesses, or industries for two years prior to beginning the VIC program. This requirement is meant to ensure that the program is not filled by those who have no interest in a technical field or who consider it a second choice to a formal academic program, and who would, at the first opportunity, drop out. In the same vein, those who have successfully completed a lower stage of the program (say the Grade III Test), and who wish to advance to the next stage, are required to demonstrate their interest and commitment by working at their trade for at least one year before being allowed to continue.

The program is open to all age groups, but young adults tend to dominate the trainee population. Some primary-school-leavers attempt to enter the program directly after graduation, but they are usually advised first to become apprenticed to local small-scale entrepreneurs. Although this program was not primarily aimed at school-leavers, it is helping to induce primary-school-leavers to become apprentices. It reduces the problem of unemployment, while helping to train skilled workers. Although the BATC is considering offering typing and other secretarial courses that would attract women, the courses offered thus far have tended to limit the trainee population to males.

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* Nigeria's four former regions were subdivided into 12 states in June, 1967, shortly before the outbreak of civil war.

Training Programs

The basic training program lasts for 10 months and is divided between general studies (English, arithmetic, and bookkeeping) and training in a particular trade. Instruction is given in the evening for two hours, four to five days a week. About half the instruction consists of practical demonstrations in a particular trade, while the other half is devoted to general studies.

The training program aims at preparing trainees for the Grade III Artisan Test conducted by the Federal Ministry of Labor. A Grade III certificate is roughly equivalent to the qualifications obtained by the skilled artisans and craftsmen trained at Government Trade Centers and Technical Training Schools. The VICs, however, also provide more advanced training in preparation for Grade II or Grade I tests. Training for the Grade I tests takes two years.

Courses in particular trades vary with local demand. The BATC in Kaduna started with only three trades, motor mechanics, building, and carpentry, but in the 1971–1972 session, courses were being offered in six trades: motor mechanics, general fitting, plumbing, welding, bricklaying, and carpentry. In Maiduguri, carpentry, motor mechanics, electrical installation, and bricklaying were the first courses offered. In the 1971-72 session, painting and decoration were added. The average class for each trade is supposed to contain about 24 trainees, but classes may range in size from as few as five (though this is rare) to more than 30. When a class exceeds 40, it is usually divided in half. In Maiduguri, during the 1971-1972 sessions, two classes each were run in motor mechanics and electrical installation.

In general studies, trainees are divided into two groups, one for literates and one for illiterates. Instruction is given in Hausa when necessary.

The number of trainees varies from year to year, but initial enrollment has ranged from about 100 to 130 in recent years. In 1971–72, there were 130 trainees in the Kaduna Center. Ninety per cent of these were being prepared for the Grade III test; the rest received preparation for Grade II. In Maiduguri, however, 10 candidates were presented for the Grade I examination in 1970-71. Seventy-three candidates survived the end of the course out of about 120 who started.

Recruitment and Incentives

Trainees are recruited through advertisements in the press (English and Hausa), spot anouncements on radio, posters and leaflets, personal contact with current or past trainees, and direct contact by the organizers of the center. Advertisements, posters, and leaflets briefly describe the program, stressing the fact that it is free. They also emphasize that the center awards certificates to those successfully concluding the course, and presents eligible candidates for the Federal Ministry of Labor Trade Tests. Entry requirements are also stated. Demand for admission is usually quite high and in many cases the number of qualified candidates exceeds available capacity. In 1970, more than 1,000 applicants sought admission to the center at Kaduna; only 130 candidates were selected. Applications are screened and the most promising candidates are interviewed. If the number of applicants is not too high, all are interviewed.

Several incentives lure people into the program and sustain their interest in it. There are no tuition fees, and trainees are supplied with pencils, notebooks, work materials, etc. The best two or three trainees in each trade also receive tool awards worth between $45 and $80 at the end of each course. The best students are chosen on the basis of attendance and overall performance.

The prospect of job advancement, after passing the Federal Trade Tests, is an additional incentive. The centers pressure employers to upgrade those employees who have passed the Trade Test and to pay them higher wages. Upgrading has, however, not been automatic on passing these tests. This has caused some demoralization, and some trainees have left the program because the prospect of upgrading was in doubt. Those who are self-employed tend to view the certificate as a means of finding a job that offers more security or as a means of obtaining a loan to expand their business.

Wastage

In spite of these incentives, the drop-out rate is fairly high. Of 128 trainees who started the program at Kaduna in 1968-69, only 88 were presented for the Federal Trade Test. In 1969-70, 87 of 130 trainees who started the program were presented for the Trade Test, and in 1970-71, only 78 of the original 139 trainees were presented for the test. In Maiduguri, the drop-out rate was estimated at about 50 per cent in the first two years; it fell to 27 per cent in 1970-71.

Several reasons have been given for this high wastage. For the self-employed attendance at classes may mean a loss of opportunity to make money. Some employees have dropped out of the courses because they have been transferred from their jobs. Some of those who were transferred joined VIC courses in their new locations, if such training was available. In Kaduna, the location of the center—as much as six miles away from some trainees–is a deterrent to completion of the course, especially since many trainees must travel on foot after a hard day's work.

Performance on the trade tests have varied from year to year. In Kaduna, recent results have been encouraging: of the 78 presented for the tests in 1970-71, only seven failed. When the poor background of the trainees and the short duration of the course are taken into account, this performance can be viewed as most satisfactory. At Maiduguri, however, only about 20 per cent of those originally enrolled in the course passed the trade tests in 1970-71.

Staff, Plant and Equipment

Arrangements for staff, plant and equipment are a particularly innovative aspect of the VICs. The center at Kaduna started without constructing any new plant or buying significant equipment other than simple hand tools. Classroom and workshop space at the city's Technical Institute were used, making for more intensive utilization of an already-existing facility. The center—at the direction of the Ministry of Education—was charged no fee for its use of the Institute.

The use of existing plant and equipment characterizes all Vocational Improvement Centers, even though specific arrangements may vary from place to place. In Maiduguri, for example, the VIC used a primary school for its general studies classes. For practical work, the center used the workshops of the local government. The center was permitted free use of these facilities, although it paid for wiring the classrooms so that they could be used at night. (The center then paid all the electric bills.) The center also paid for new materials such as wood for the carpentry course, and provided hand tools for trainees.

The general philosophy of the VICs is to have as little full-time staff as possible. The center in Kaduna is not typical in this respect. It has two full-time instructor-administrators, one clerk, four laborers, six part-time technical instructors (in each of the professional trades), and six part-time teachers for academic subjects (i.e. English, arithmetic, and bookkeeping). In Maiduguri there is no full-time staff. The director and his deputy are civil servants charged with other responsibilities, although they see to administration of the center. There are five part-time technical instructors, one for each trade class, and four part-time academic instructors.

Every attempt is made to obtain well-qualified staff for the VICs. At Maiduguri, for example, the instructor in electrical installation is a graduate electrical engineer working with the Electricity Corporation of Nigeria. The instructor in motor mechanics is an experienced mechanical superintendent from the Ministry of Works. The bricklaying instructor is a mason as well as an instructor in a craft school. The carpentry instructor teaches in a craft school and has about 10 years of experience. The painting and decoration instructor has comparable qualifications. At Kaduna, academic and technical instructors also have requisite academic qualifications, combined with several years of experience. Such highly qualified people were obtained because they were recruited on a part-time basis, and because the centers were located in areas where a pool of qualified manpower was available.

Sponsorship and Funding

The center in Kaduna started with a grant of $116,000 and a director provided by the Ford Foundation. The Ministries of Trade and Industry and

Education of the Northern Region of Nigeria co-sponsored the project. After the two-year pilot program ended, the project was taken over by the Ministry of Trade and Industry. Initial grants for all the VICs were provided by the Ford Foundation, although in each case, projects were to be taken over eventually by the government of the state concerned. The North Eastern State Government assumed complete responsibility for the Maiduguri Center in April, 1971. The Kaduna Center is being managed by the North Central State Government. In some cases, the VICs have been under the jurisdiction of the Ministry of Trade and Industry (as at Kaduna and Maiduguri); in other cases, as at Katsina, North Central State and Kano State, VICs are supervised by the Ministries of Education. It seems on the basis of casual observation that VICs in the former group are more effective than those in the latter group. Closer contact between industrial firms and the Ministries of Trade and Industry (MTI) has apparently been beneficial to VICs with MTI supervision.

Cost-Benefit of the Project

The cost of operating the VICs is clearly low. At a seminar in Northern Nigeria, sponsored in 1969 by the Ford Foundation, it was estimated that the average cost of training each student at the Kaduna Center was about $154. The budget estimate for the 1971-72 session at Kaduna was $26,600. Since there were 130 students, this works out at about $200 per student. At the Maiduguri Center, annual running cost is about $8,400. This figure, however, does not allow for the remuneration of the director and his deputy, who are civil servants administering the program as part of their duties. Even after this allowance is made, per-student cost in Maiduguri is only about $100. The higher costs at Kaduna result from the salaries of two full-time staff, including an expatriate.

The cost per successful trainee is considerably higher than the above per-student cost. But even those who drop out and those who fail the tests usually gain from their instruction; generally their productivity increases, frequently leading to higher pay. It is therefore unrealistic to calculate costs solely on the basis of those who pass the examinations.

The cost of training a student at the government trade centers and the technical training schools is estimated at $2,800 per student. Students at the trade centers spend three years, however, and they obtain more proficient technical and general education. These differences notwithstanding, it is clear that the VICs hold a considerable cost advantage over the trade centers and technical training schools.

Employment Creation

The VICs have no direct job-creation effect because they train only those who are already employed. They do, however, have an indirect impact on job creation. Some school-leavers who wish to attend a VIC are forced to become apprentices merely to qualify. Once qualified, many of these youths terminate their apprenticeships, which usually do not pay anything, and seek wage employment. The improvement in skills, of course, should lead to higher productivity, and possibly to more employment as well.

There are a few cases of successful self-employed artisans who claim that as a result of their participation in the course, they have substantially increased their output. One self-employed graduate of the Kaduna VIC notes that his turnover increased tenfold since participating in the program. Although this case may not be typical, it shows the considerable benefit that participants may derive from the program. Many participants who were in wage employment were upgraded, after successful completion of the course. Many self-employed graduates of the Kaduna Center have sent their own apprentices to participate in the training program they themselves went through. A more rigorous statement of benefits awaits a more detailed investigation of the program. On the basis of available information, however, it can be asserted that benefits substantially outweigh their costs.

Follow-up of Trainees

On the basis of our study of the VIC programs in Kaduna and Maiduguri, it seemed that the VICs had no formal method of following up on trainees. Some informal follow-up channels do, however, exist. In the Kaduna Center, one of the directors of the program claims personal knowledge of the whereabouts of no less than 75 per cent of the three most recent sets of graduates. Graduates are encouraged to return to the center to use its facilities and to discuss their problems and experiences with the staff, and many actually do return. Such feedback is usually taken into account in planning improvements in current training. The center also claims that most all its graduates remain within the trades for which they were trained. In many cases, graduates who are already self-employed or who are contemplating starting their own businesses come to the center for advice on acquiring loans.

Nigerian Manpower Needs

Within Nigeria, technical manpower is grouped into the following categories:

(1) High-level professionals, such as engineers, accountants, surveyors, etc., who are normally trained in the university;

(2) Technicians, an intermediate grade of workers normally trained in polytechnics and colleges of technology;

(3) Craftsmen or skilled workers who are trained through apprenticeship, or by a combination of formal vocational education and apprenticeship. Such training is normally conducted at trade schools, technical training colleges, or industrial vocational institutions;

(4) Artisans or semi-skilled workers who may receive short vocational training, or may learn on the job without any formal training;

(5) Unskilled labor which is used for positions requiring no formal training.

The average graduate of the VICs fits somewhere between categories 3 and 4. The formal institutions for training craftsmen are the Government Trade Centers (as they are called in the South) or Technical Training Schools (as they are called in Northern Nigeria). There are only three such institutions in all Northern Nigeria. Trainees attend the schools for three years; they then complete two years of industrial training. These schools stipulate that all candidates for admission hold a primary-school certificate and that they have completed three years of post-primary education, either in pre-vocational institutions such as craft schools or in secondary schools or junior high schools.

Various industrial and corporation vocational training centers, such as the Nigerian Port Authority Training School, the Nigerian Railway Corporation Apprenticeship School, and the United Africa Company (UAC) Technical Training School, require a minimum educational qualification of four years of secondary education. Their training lasts for up to five years, leading ultimately to the Nigerian Federal Government Craft Certificate or an Intermediate City and Guilds Certificate.

Evaluation of VICs' Performance

All formal programs for training technical workers in Nigeria require a reasonably high level of academic education for entry. The VICs stipulate no such requirement, and thus allow persons who could not gain admission to other programs to acquire more technical training.

The main objective of the VIC program is to provide training for self-employed artisans and their employees. Trainees have little or no formal education, but have attained some degree of skill through apprenticeship. Under the supervision of Gardner, efforts were made to sell the program to this target group in Kaduna, and program aims were largely achieved. At Kaduna, it was relatively easy to integrate the efforts of two Ford-sponsored programs, the BATC and the Small Industry Credit Scheme.

The program's main objective has not been achieved in other VICs, where the great majority of trainees come from government departments or large firms, both of which are in a better position to provide their own training. Because government authorities tend to preempt places for their own employees, the many self-employed entrepreneurs from outside the northern states are generally excluded. Other VICs have not attempted to attract self-employed artisans and their apprentices.

Given the nature of their clientele, it is hardly surprising that the VICs have paid little attention to two other original objectives: (1) Assisting the small-scale entrepreneur in improving the efficiency of his undertaking; and (2) Encouraging those trainees with demonstrated potential to establish their own businesses. Little evidence suggests that VIC training has encouraged artisans in wage employment to set up their own businesses. They have generally been satisfied with wage increases and increased security in their jobs. Benefits to the Nigerian economy are mainly productivity increases resulting from upgrading of skills.

It remains to be seen how long the VICs can continue to train artisans in a small number of trades, before a surplus is created. It is also still to be seen how flexible they will be to new demands. Studies of market demands are needed, if the VICs are to make the right changes in time. They do, however, offer a unique program capable of building on the traditional apprenticeship system.

Potential Improvements

The impact of the VICs is still well below its potential considering the program's low costs, the urgent need for more skilled artisans, and the thousands of qualified applicants rejected each year because of inadequate program capacity. There is substantial scope for expansion within Northern Nigeria itself. In Southern Nigeria, only a start is being made.

The unique characteristics of the VICs must be considered in any expansion. VICs use available manpower and equipment and operate at low cost. Thus, program success is largely dependent on the availability of personnel and equipment. Also critical is the availability of industrial or governmental institutions to provide apprentices for the program or a sufficiently thriving market that can generate enough self-employed people who wish to improve their condition. Such conditions are likely to be found only in major cities. But if these conditions can be met, it is likely that the VICs could have a revolutionary impact on African industrial development. The program's potential should be exploited in other African countries, as well as in Nigeria.

If Vocational Improvement Centers are to be established on a scale that allows for greatest impact, more assistance will be needed. African governments and their international supporters must recognize the need for expanding the scope of VICs. The manner in which external aid donors can assist in this expansion will vary from country to country. In some parts of Africa, expert expatriate personnel may be needed to help operate the VICs. Where this does not hold true, it is essential that other forms of assistance be found.

The VICs have concentrated on training. They are expressly forbidden to recommend candidates for government loans. In considering the expansion of the VICs, thought should be given not only to broadening the range of technical skills taught, but also to linking more closely successful completion of the course with access to additional management training and the acquisition of required capital equipment. Perhaps external aid agencies, with their emphasis on capital exports and financing of "offshore costs," may find a role to play in this connection.

BRIEF CASE STUDIES

1. CAMEROON

Association pour la Formation des Cadres de l'Industrie et de l'Administration

Objectives

The goal of the *Association pour la Formation des Cadres de l'Industrie et de l'Administration* (AFCA) is to train Africans to take on management responsibilities in large businesses, government agencies, or small private enterprises. The organization also intends to help improve trainees' leadership qualities. Thus, courses in accounting, stock management, and credit receipt are mixed with practice in conversational English, group relations, and articulation of problems. Training includes a two-year course, plus in-shop counselling, for heads of small and medium enterprises, a three-year course for middle-level management of large firms, and a series of upgrading or refresher seminars for heads of large enterprises. Courses in nutrition, child care, sewing and cooking are given to the wives of AFCA trainees to help them keep pace with their advancing husbands.

Courses

The longest continuing activity of the two Cameroon AFCA Centers (at Douala and Yaounde) has been the training and upgrading of middle-level managers of large enterprises. Trainees in this program are sent by their companies, which also pay all fees. Generally, trainees have been promised promotions at the end of their training. Although the course is designed to last three years, students may skip the first or second year, depending on their previous training and experience and the promotions they have been promised.

The first year of the program aims to integrate the individual into his job by instructing him in the problems of the enterprise, in rational decision-making, and in development of a sense of responsibility. He is taught the mechanics of production, business economics, human relations, work organization, thought processes, and oral and written expression. The second year is devoted to teaching the trainees about the integration of the firm in the national economy. Trainees receive instruction in national and international economics, market mechanisms and industry-government relations. The third-year curriculum attempts to teach the trainees better relations with their superiors and subordinates and to improve the organization of production. During this year, he is taught human relations, work organization and rationalization, statistics, graphics and planning.

In addition to this three-year course, trainees from business can take nine-month upgrading courses in specific subjects: written expression, sales, stock management, financial management, commercial and banking documents, practical English, or personnel management techniques. In all these courses, the curriculum is adapted to problems trainees encounter in their jobs.

Training for Entrepreneurs

Perhaps the most interesting training provided by AFCA in Cameroon is to heads of enterprises with 20 or fewer employees. For three hours per week for two years, these students are trained in display and advertisement of products, accounting, stock control, preparation of administrative documents, etc. More important, however, are regular visits by the AFCA teaching staff to the businesses of the trainees. These visits allow for evaluation of the effectiveness of the classroom teaching; they also allow teacher and trainee to discuss problems confronting the business of the individual trainee.

AFCA also helps small businesses by operating a credit fund and by sponsoring public expositions of the firms' products. Because of the careful attention given to each trainee and because of the credit pool and expositions, the drop-out rate for this AFCA training is near zero.

Organization, Administration and Finance

Central administration of AFCA is located in Paris, where contact is made with interested ministries of the French Government, especially the Ministry of Foreign Affairs, and with the Secretary of State. The non-profit organization also cooperates with the General Direction of Overseas Development of the European Economic Community which gives it considerable financial support (see below).

In each country where an AFCA training center is established, contact is made with university organizations, technical vocational schools, employer groups, chambers of commerce, and the government. So far, such centers have been established in Tunisia, Algeria, Congo-Brazzaville, Zaïre, Gabon, and Madagascar, in addition to those in Cameroon. The Cameroonian AFCA organization was begun in 1961 in Douala, and expanded to Yaounde a few years later.

Teachers at both Cameroonian centers have varied backgrounds. There are three teachers at Yaounde in the section for middle-management of large enterprises. One graduated from the *Hautes Etudes Commerciales de Paris* (equivalent to a graduate business school degree); one has a university degree in economics; and one has a university degree in political science and public law. These teachers train the 40 to 50 students enrolled in this section.

At Douala, where 150 to 160 students are enrolled in the middle-management section, there are seven teachers, one of whom is a psychologist. Two teachers were provided by the French "Cooperation," the French foreign aid agency; three are members of the French military (doing alternate service); two are Cameroonian. The most Africanized portion of the staff teaches the heads of small enterprises. The four teachers in Yaounde have high school degrees, technical school degrees, and teacher training given by AFCA itself.

They are responsible for the 25 to 30 students enrolled annually in the small-business section. At Douala, there are 70 to 80 students in the small business section. They are taught by six instructors, three of whom are Cameroonian.

Training costs are about $370 per student per year. Sponsoring enterprises pay all fees for their management trainees. Since the heads of the small enterprises often cannot afford such fees, they are given scholarships by the European Economic Community. Total operating costs for all courses (salaries, amortization and all other expenses) are about $37,000 per year at the Yaounde center and nearly twice as much at the larger Douala center. In addition to the financial assistance given by the EEC, the French General Commisariat of Productivity is the primary source of financial support.

General Comments and Evaluation

The significance of the AFCA effort is partly manifested by the fact that some 92 large Cameroonian enterprises send employees to AFCA. Many of these companies have sponsored several trainees. The drop-out rate is low, and visits of AFCA teachers to sponsoring enterprises indicate that employers are satisfied with the program.

The AFCA project proves the efficacy of training employees of many companies at one center so that wasteful duplication is eliminated. The project is also important because its curriculum remains flexible enough for adaptation to pupils' specific needs. The program also provides training for many levels of businessmen. Its training for heads of small enterprises deserves careful study by other organizations in Africa attempting (generally with less success) to provide similar training. The project exhibits, through its credit funds and expositions, the need for a link between training and actual support of student business.

The desire of AFCA to further Africanize its staff, if realized, will probably increase the project's strength, especially in bettering communications with the small entrepreneur. One hopes that necessary funds will be forthcoming to provide teacher training for a greater number of Cameroonian instructors who could eventually replace the present European staff.

2. EAST AFRICA

Management Training and Advisory Centers

a. Kampala, Uganda

Background

The Uganda Management Training and Advisory Training Center (MTAC) began in 1965 as a joint project of the Uganda Government and the United Nations Development Program. Appointed to implement the project were the Ministry of Commerce and Industry (Uganda Government) and the International Labor Organization (ILO) on behalf of the UNDP. Both UNDP and ILO continue to provide some teaching and advisory staff, as well as material assistance. The Center is governed by representatives from the Uganda Government, industry and trade unions. Daily administration is the responsibility of the MTAC's Director, Mr. A. B. Abaliwano.

Aims

The project's aim is "to develop a center which would be responsible for the management development of Ugandans in both large- and small-scale enterprises, and covering Government, quasi-governmental and private organizations." Based on experience gained during its formation, the MTAC attempted to implement the McClelland model of achievement motivation as part of its curriculum.* (This program was financed by interested clients in Uganda, but a lack of funds has recently forced its curtailment.) Training based on the McClelland model involves conceiving of problems in terms of model situations, working out solutions and then conceptualizing similar problems and solutions that would arise in the company for which a student works. In implementing this program, there was considerable consultation among McClelland, the staff, the ILO and the Uganda Government. The result was a highly capitalized center that may have been over-advised.

Courses of Instruction and Target Populations

At present the Center has three main functions:

1. Management development and training programs;
2. Consulting and advisory activities; and
3. Information and documentation activities.

During 1970, the MTAC handled about 500 students, mostly at its classrooms and workshops in Kampala. The majority of these students were supervisory or senior management personnel and were sponsored either by private industry or by Government. During the last six months of 1970, only four of the 19 courses offered were aimed at small-scale entrepreneurs and craftsmen. Of the 271 trainees who attended MTAC during this period, only 62 were self-employed small businessmen.

For the purpose of this report, courses given by MTAC can be divided into two main categories: those serving middle and upper managerial echelons (Client Courses), and those serving small entrepreneurs (Small Enterprise Development Courses, known as SECs).

The average client course lasts two weeks; the average fee per week for each participant is $35. The average SEC lasts one week, and costs an average of $5.60 per participant. Fees for the achievement-motivation program were notably higher, ranging from $30 to $150 per course.

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* McClelland, David C., *The Achieving Society*, Princeton, 1961.

Impact

Despite the small number of trainees involved, graduates of the two SECs achieve a high degree of success. According to McClelland's Business Activity Code, which measures an individual's increased business activity and interest, some 60 per cent of the SEC graduates did better work than anticipated by the officers who rated them. This compares with a rate of 40 per cent for all MTAC graduates. The two courses offered in 1970 covered metal-working and small business management. In metal-working, expatriate instructors had to have their lessons translated to the Luganda- and Swahili-speaking class.

The MTAC's own analysis of its program for the last six months of 1970 indicates that SEC trainees showed the greatest enthusiasm (two-hour classes usually lasted four hours, by the students' choice). It was also noted that SEC students formed the program's "most cohesive alumni." They made greater demands on MTAC resources than other groups in terms of follow-up requests for assistance and guidance. They also cooperated well with each other and took over their own classes at a fairly early stage. MTAC concluded that these two courses had been "particularly rewarding."

Difficulties encountered with the 60 per cent of the managerial-level MTAC graduates whose performance did not improve on returning to their employers contrast with the record of success among SEC trainees. Blame for this lack of improvement was laid to the unwillingness of bureaucrats to accept students' new ideas. A firm's image was also cited as a factor affecting employee improvement. MTAC's evaluation report states, "Benefits can be obtained by participants attending achievement training programs. However, it seems that increased performance . . . can be greatly enhanced if the organization sponsoring the participant is recognized as possessing a favorable image."

Concerns about status and role performance in bureaucracies matter less to the self-employed and to the small businessmen with whom MTAC has been most successful. These trainees returned to job environments that they themselves controlled, and they were thus able to give immediate attention to skills learned at the Center. From this point of view, it would seem that the smaller the enterprise, the more independent the entrepreneurs and the greater the degree of motivation. In terms of psychological impact, it may be concluded from MTAC experience that this kind of training is best suited to an economy like Uganda's in which bureaucratization is limited.

Assessment and Transferability

The SEC curriculum can be transferred, and many communities support the kind of entrepreneurial groups needed to make the program work. The problem of providing free or low-cost training presents the biggest obstacle to transferability. The solution at MTAC was to let the relatively expensive Client Courses pay for the education of the small businessmen. Whether an arrangement of this kind could be duplicated would depend on the political climate of the country in which a program was planned.

b. Nairobi, Kenya

The MTAC in Nairobi was established in 1966 with technical assistance from UNDP and ILO. These agencies also provide 60 per cent of the necessary financing. The Kenya Government financed the remaining 40 per cent of costs. The UNDP, through ILO experts, will support the project for five years and will extend its support if it is deemed necessary. The objective of the center is to offer courses in various aspects of management in order to upgrade the competence of Kenyans in management or sub-management positions in foreign companies operating in Kenya. The MTAC also conducts special studies for businesses and advising them on the solution of business problems.

After initial problems, the MTAC seems to have become quite successful in getting both large and small companies to send their staff for courses. These courses usually last from about two to eight weeks. The Center conducts about 55 courses annually and reaches more than 600 participants. Theory sessions at the Center are followed by actual work-study sessions involving solutions to actual problems. Final reports on findings are presented to a seminar at the Center. Since 1968, the Center has increasingly attempted to provide courses for small businessmen, although these are still only a small part of the Center's activity.

Expansion of the Center awaits completion of a Government study on how to coordinate nationwide non-formal management training. In Kenya, other organizations, such as the Kenyan Institute of Management and the Adult Studies Department of the University of Nairobi, are attempting to do similar jobs. Both the MTAC project and Kenya's attempt to avoid duplication and waste deserve the attention of other African governments.

3. GHANA

National Vocational Training Institute

Objectives

The National Vocational Training Institute was established in 1969 to determine Ghanaian manpower requirements, and to provide trained industrial and office employees. To perform this function, the Institute has had to establish skill standards (in conjunction with employers), administer tests to trainees on the basis of these standards, and upgrade trainees to the required standards.

The Institute also trains its own instructors and training officers. Effective performance of these functions requires periodic assessment of training needs and review of past programs.

Administration

Since it received corporate status under the National Vocational Training Act of 1970, the Institute has been assisted by a team from the International Labor Organization. Each ILO expert has a Ghanaian understudy. Control and administration of the project will eventually pass to Ghanaians. The present contract with the ILO runs to 1972, but it is expected to be renewed.

The Institute is composed of seven departments:

1. Vocational Training Planning. This department is principally concerned with projection and estimation of trained manpower needs. The Department surveys industrial and commercial operations and educational institutions in order to analyze manpower requirements in various trades. On the basis of these surveys, the Department recommends training for various trade categories and estimates the number of persons needed in a particular field.

2. Standards Department. This Department establishes levels of competence in key trades, taking into account the prevailing skill level worked out by the Planning Department. To determine prerequisite skills in various plants, the Standards Department develops job analyses and formulates training standards. The Department also designs and administers trade tests and teaches instructor trainees how to conduct job analyses and construct trade tests. This Department also organizes occasional courses and seminars. These last from one to three weeks and aim to upgrade testing officers and training supervisors.

3. In-Plant Training Department. This section assesses in-plant training programs and facilities in various industries to see how they meet training needs and potential. If facilities fall short of needs, the Department offers advice on how they can be improved. The section works with management to develop in-plant training programs by advising management on the use of educational institutions to implement or improve in-plant instruction.

4. Apprentice Training Section. Regulation of all Ghanaian apprentice training is the major objective of this section. The unit attempts to establish uniform standards among all apprentice training programs within Vocational Training Centers. Efficient performance of this function requires that the unit study apprentice legislation and determine whether changes are needed. The section also checks on standards and certification in apprenticeship programs and recommends improvements. It also tries to determine how apprentices can benefit from instruction at educational institutions and recommends initiation of new programs.

5. Instructor Training Department. This Department tries to determine training requirements of various industries and then selects candidates to be trained. Attendant to this function is that of developing relevant course material. Finally, the section develops a national certification system for vocational and industrial instructors. Three- to 12-month courses are conducted to help those who are already instructors and to train new instructors in vocational subjects.

6. Clerical (Supervisory). This section is concerned with training in office practice and organization, staff and work control, dictation skills and

interviewing. The section determines what is needed to improve office practice and techniques and organizes in-service training in office organization and supervision for senior clerks and office supervisors. It also advises on the selection of trainees and prepares and supervises intermediate and final examinations.

Instructors for clerical training are also selected by this unit. Finally, the Department advises on co-ordination of office training in already-established institutions. Courses conducted for office supervisors and executives run from three to five weeks.

7. Clerical (Secretarial). This section organizes training programs, prepares training materials, selects trainees, and supervises work for intermediate and final examinations for clerical grades. It also selects and trains instructors. Receptionists, switchboard operators, clerks, typists, stenographers, secretaries and all others whose work involves office skills are covered by the program. Other office skills such as cash handling, mail handling, filing, machine operating and using the telephone are also taught. Courses conducted for secretarial, stenographic and clerical staff last from one to 26 weeks.

Financing

The National Vocational Training Institute is jointly financed by the Government of Ghana and the UNDP, through the International Labor Organization. The ILO will contribute $750,000 and the Ghana Government $350,000 for the program's initial two years. Though these are the main sources of finance, the National Vocational Training Act specifies other sources of funds. For example, the Institute can borrow from the Government or receive grants from any international organization or charitable institution. Funds may accrue to the Institute in performance of its functions. In view of the high demand from industry for vocational training, fees might be charged in future. At present, however, the Institute charges no fees.

4. IVORY COAST

Centre de Perfectionnement Audio-Visuel

The *Centre de Perfectionnement Audio-Visuel* in Abidjan, Ivory Coast, operates under the auspices of the *Ministère de l'Enseignement Technique et de la Formation Professionnelle*. It is designed to improve the skills of already employed secretaries.

Because each class at the Center can admit only 15 students, applicants must take entrance examinations. These tests, organized in collaboration with the psychologists of the *Ministère*, are psycho-technical, determining whether the candidate is trainable. Most secretaries studying at the Center are from the public sector, but it is hoped that there will be more from the private sector.

Courses

The Center has morning, afternoon, and evening sessions. Students may choose between a five-month course that meets four hours a day and a 10-month course that meets only two hours a day. Instruction is offered in typing, stenography, accounting, business techniques, commercial correspondence, office organization, written and oral French, and English.

A school employing audio-visual techniques must be well-equipped. In one of the Center's three classrooms there are electric and manual typewriters and adding machines of various makes. There is also a four-track Dictaphone that enables the better students to listen to one track, while slower students listen to another. In the other two classrooms, used for teaching English and French, there are tape-recorders and a machine that registers the response of individuals and of the class as a whole, so that the instructor can readily evaluate their performance. The faculty consists of Madame Landan, who is the Director, one French and one Swiss expert, and about eight local teachers.

Finance

Program costs have not been determined, but success depends upon continued subsidy from the Ministry of Technical Education and Vocational Training. Each employer pays for the training of his secretary; cost to private firms is lessened by tax credits.

The Center has recently begun to move in new directions. An experiment is being conducted in training girls who come straight from school and are without jobs. Language facilities have been used to train language teachers for the army and to prepare others, such as hotel employees, who need a foreign language in their work. During vacations, the Center's facilities have been used to acquaint secondary-school teachers with audio-visual equipment.

The Center is quite efficient and secretaries receive a high quality of training. Whether the Center's program is adaptable to other countries is questionable, for the program is expensive and depends on foreign assistance. Consequently, it may be beyond the financial capabilities of many African countries.

5. KENYA

a. Industrial Training Levy

The Industrial Training Levy is a legislative attempt to induce private firms to offer their employees more training. The legislation is relatively new and implementation is still in an early stage. Essentially, the law requires that all firms pay a levy into a training fund. Companies that begin training programs will be reimbursed out of the general fund. The law does not stipulate, however, how much the levy will be.

It is expected that the amount of the levy will be determined after consultation among representatives of government, business, and labor. The economy is to be divided into several sectors. Each sector will have its own committee to determine what the training requirements in that sector are. The committee will also estimate training costs and will determine what part of training should be done by sending employees for formal education. The committee then will estimate the rate of levy that should be imposed on each produced within a given sector. These findings will be presented to the Minister in charge of a particular sector of the economy. The Minister will then make a recommendation to the National Industrial Training Council, the national body responsible for training matters in all sectors. The National Industrial Training Council also consists of representatives of government, business, and labor. Final recommendations from the National Industrial Training Council are enacted into law, after consideration by the cabinet.

Although the levy is not a non-formal education project, it is a device to induce more non-formal education in the form of on-the-job training; those companies that do not train still must pay the levy.

b. Ngashira and Partners Building Contractors, Ltd.—Kaimosi

This construction company was started by Brother Hugh Sullivan of the Catholic Diocese in Western Kenya. Brother Sullivan has been working in this area since 1958. As of July, 1971, there were three partners and roughly 30 permanent employees in the company. Total employment, however, is more than 200 at any given time; the firm takes on many construction jobs in all parts of Western and Central Kenya. The primary purpose of the company is to train and employ, not to make money. The three partners draw only modest salaries and profits are used to buy equipment for the firm. Shares are now being sold to employees for about $2.80 a share.

The company has trained more than 200 people and is widely recognized as the best construction firm in the area. Length of training varies according to an individual's needs and progress. The average training lasts four or five months in the shop at Kaimosi, although some trainees serve as apprentices on jobs for a longer period. Brother Sullivan was trained in architecture and building in the United States and supervises much of the work. He also teaches bookkeeping, blueprint preparation and cost estimating.

Originally, the company's work was limited to Catholic schools or missions in the area, but in the last few years it has expanded to include projects such as banks, golf clubs and tea factories. Much of the funding, especially for equipment, has come through international Catholic agencies. The company, however, is expanding fast enough to become self-sufficient.

c. Partnership for Productivity—Kakamega

In October, 1970, after several years of planning by Quaker organizations in Kenya, the United States and Britain, Partnership for Productivity began operations in the municipality of Kakamega. Designed to assist small enterprises in Kenya's Western Province, PFP has two principal programs: a management advisory and training program for local entrepreneurs and a credit-loan and investment program known as West Kenya Productivity Investments Ltd. (WKPI).

Advisory Functions

During its first six months of operation, before WKPI had been granted a certificate of approved enterprise by the Kenya Government, PFP initiated and developed its advisory function. Assistance was limited to advice in business management and bookkeeping and to directing rural clients to sources of technical and financial aid in Kenya. PFP also organized a one-week business accounting course in Kakamega. The course was attended by 35 selected entrepreneurs and was conducted by representatives of the International Labor Organization. During this time, the PFP staff found that lax credit policies were a major source of difficulty for entrepreneurs, whom they advised to require advance payments for orders or work to be done.

Financial Assistance

In May, 1971, the Kenya Government announced that WKPI had been certified as an approved enterprise. Subsequently loans totalling $14,000 were extended to nine enterprises, including a cloth-printing company, a bakery, a motor mechanic's shop, a grocery, and a women's knitting cooperative. Most of these loans are for one year; amounts range from $840 to $3,500. As of late 1971, the credit-loan program appeared to be operating efficiently. Those who had borrowed were consistently meeting monthly payments. Plans called for investment in more than 15 other projects.

Project Staff

The Director of PFP in Kakamega, George Butler, is an American with considerable business experience. He also worked for the Ford Foundation and USAID in several other African countries, including Nigeria and Ethiopia. Butler took charge when the project began, in October, 1970. Since then, he has been joined by seven other staff members, including an African secretary and office manager, an American engineer, and four Englishmen, including two volunteers. PFP is sponsored by the East Africa Yearly Meeting of Friends and has an African Board of Directors, whose backing has been useful in obtaining licenses and in other bureaucratic dealings with the Government.

Operating Costs

The annual operating budget of PFP, as of late 1971, was about $80,000. This covered the salaries of six expatriate advisers, as well as the cost of office administration, transportation, and other related expenses. Most of these funds have come from grants and investments by organizations and private individuals in Britain and the United States, although a number of Kenyans have also contributed to PFP's support. With plans to extend its loan services, PFP is campaigning to attract contributions from a wider constituency.

Impact

The relatively short time that PFP has been operating provides no basis for a definitive rating. It is clear, however, that the project is aimed at meeting a vital need, and that this is recognized by the Kenya Government. PFP is being integrated into the Rural Industrial Development Program (RIDP) and has been designated as the implementation agency for RIDP in Western Province. Furthermore, PFP continues to develop ties with other institutions and development projects. A $25 million sugar refinery is being planned for the town of Mumias, about 30 miles west of Kakamega, and PFP is cooperating with the Bookers Company, a British firm, to assist local businessmen in starting enterprises that will provide ancillary services for the new community that will grow around the factory. PFP's sponsors and organizers hope to develop similar organizations elsewhere in Africa.

6. NIGERIA

a. Industrial Development Center—Zaria

Historical Background

The Industrial Development Center (IDC) dates back to the former Northern Regional Government of Nigeria, which in 1967 was superseded by six states created from the Northern Region. One of the functions of the Ministry of Trade and Industries of the former Northern Region (NNMTI) was to regulate and encourage the growth of small industries. NNMTI advised entrepreneurs on request. In 1961, however, a reappraisal of NNMTI's approach had to be made because of the rapid increase of requests from such entrepreneurs as leather-goods manufacturers, rice millers, Kente-cloth weavers, private miners (mainly on the Jos Plateau), boat builders, carpenters, cabinet makers and metal workers.

Assistance offered by NNMTI to entrepreneurs was limited. Support was confined mainly to directing businessmen through appropriate channels for obtaining licenses and other documents. Not much technical advice was offered, even on request, and the Ministry rarely investigated the problems of small businesses. The Northern Regional Government thus decided to establish an Industrial Development Center under control of the Ministry of Trade and Industries. Administration of the Center was organized by 1965, and in 1966, a limited program of action was begun. IDC did not become fully operational, however, until the end of 1968.

Objectives

The present goals of IDC are:

1. To provide technical and management assistance to owners, managers, and supervisors of small industries;
2. To improve management and organization of small industries so that improved productivity makes them more viable;
3. To identify opportunities, encourage entrepreneurship and aid in the establishment and implementation of industrial projects;
4. To evaluate applications for private and government loans for creating new industries and for expanding existing industries;
5. To adapt and exploit the use of indigenous materials in the design and construction of new products for local manufacture;
6. To provide information on specific industries.

IDC Training Programs

The above objectives go beyond IDC's original plan which called for providing five-day workshops and seminars on on-site consultation. Such training now reinforces IDC's main activity, assisting in the operation of the Small-Scale Industry Credit Schemes in the six northern states of Nigeria. These programs have made it easier for IDC to identify businessmen who need assistance. Technical and management courses have been designed mainly for loan applicants. Courses range from one week to three months; the average course lasts about one week. Courses are usually given for groups of about 20 to 25 at IDC premises in Zaria. IDC also conducts in-plant training for small businessmen.

Each technical course conducted at the IDC, Zaria, deals with a specific trade or business; only persons actually engaged in that particular activity are allowed to participate. This arrangement makes for easy communication between instructors and participants. In the technical courses, theoretical explanations are kept at a minimum. Information is given in Hausa (the major indigenous language in Northern Nigeria), Yoruba (another major indigenous language), and English. A wide range of technical operations is demonstrated in the workshop, and participants are encouraged to carry out practical examples during classes.

Equipment

Courses introduce entrepreneurs to new techniques and tools. Hand-operated sheet-metal equipment, for example, has been constructed from scrap metal by the staff. This piece of equipment is a simplified version of an existing machine, but it is inexpensive enough for the small businessman to purchase and to be manufactured in a small workshop.

IDC's technical courses are related to the workshops and equipment to which they have access. IDC has workshops for woodwork and metalwork (including a foundry), as well as agricultural implements, automobiles, leather goods, and rice and corn mills. IDC also has equipment for sweater-knitting, weaving, groundnut oil extracting, tanning, baking, gari-making, watch assembling and leather goods production. (Gari is a starchy non-nutritious staple food.)

IDC relies on private mining firms to supply mining equipment for demonstration purposes. The program also uses some of the facilities of the nearby Leather Institute.

IDC management courses cover the following areas: general management of small workshops, workshop organization, inventory and production control, material handling, quality control, production layout, costing and pricing, marketing and record keeping.

Incentives, Recruitment and Wastage

Although IDC programs started with only 24 participants in 1966, enrollment increased to 1,258 in 1970, indicating considerable interest in the IDC approach. Interest among businessmen has been stimulated by the fact that courses are brief and do not require a long absence from business. Some participants attend more than one course a year. The fact that courses are not free has not discouraged trainees. But fees paid by participants are subsidized, and most of the cost of maintaining the Center is not covered by fees.

Another reason IDC has engendered considerable interest is the availability of credit facilities to entrepreneurs through Small-Scale Industry Credit Schemes (SSICS). The SSICS is sponsored by the government of the six Northern States of Nigeria and the Ford Foundation. The Federal Government of Nigeria makes money available to the SSICS, which receives loan applications. SSICS turns the loan applications over to IDC for pre-investment feasibility studies. If IDC makes a positive recommendation and the loan is granted, the entrepreneur seeking funds must contribute 20 per cent of the estimated cost of the project for which he is borrowing. The IDC advises the SSICS on how to allocate loan monies.

Sponsorship and Funding

The Northern Regional Government, which decided in 1967 to establish the IDC, found that it needed external assistance for both material and personnel. The United States Agency for International Development decided to assist the project. Equipment and technical personnel were provided by USAID. Although the government of Northern Region had paid for building the IDC, it was reimbursed by USAID. As is usual with such foreign assistance, it was understood that full responsibility for the project would eventually pass to the Northern Regional Government. With the creation of the six Northern States out of the former Northern Region in 1967, and with difficulties arising from joint administration of such a project, Nigerian responsibility for the

IDC passed to the Federal Government of Nigeria. The Federal Government will assume full responsibility for the project in 1972.

It is estimated that the Center's building and equipment cost $425,600. A further expenditure of $47,600 on buildings and equipment is planned. The Center's annual running cost is about $92,400. This does not include the salaries of four expatriate staff, two from USAID, one from the International Labor Organization and one from British Voluntary Services Overseas.

Plant and Staff

IDC is located on about 80 acres of land and has another 80 acres in reserve. The Center consists of 16 modern buildings.

The IDC is administered by a Nigerian director, who is assisted by an expatriate staff of four. Other staff includes 12 technical instructors, three senior administrators and 30 supporting administrative and workshop assistants.

Evaluation and Conclusion

Although the number of participants in IDC programs has increased, the impact of this expansion is difficult to assess. USAID evaluates the program in terms of the net profits of the businesses IDC has assisted under the Small-Scale Industry Credit Schemes. For the relatively small number of businesses that have received such loans, the program has shown a striking degree of success. USAID's approach, however, may not be entirely valid. IDC's assistance has often gone beyond the extension of credit and has included such services as securing government contracts and obtaining market outlets. Thus, many of the businesses assisted by IDC cannot be considered as independent operations in a competitive market. In addition, many IDC-aided enterprises received help in replacing businesses that were operated by non-northerners prior to the political disturbances that began in 1966. Thus, many of the IDC-developed industries began under unusual, and temporary, economic circumstances.

Several specific problems have tended to reduce IDC's efficiency. Despite the fact that Zaria is poorly situated, the program remains committed to assisting small industries in all six northern states. Because it covers such a large area, IDC simply cannot carry out efficient follow-up services. In addition, much of the equipment in IDC workshops is underutilized and is too sophisticated and expensive for local use.

It is possible that the idea and activities of IDC have stimulated the interest of the Nigerian Government and of commercial banks in small industry. But IDC's contribution would be much improved if it were based on a detailed study of invesment opportunities and priorities within Nigeria.

The IDC in Zaria is heavily capitalized. If the IDC model is to be used more successfully elsewhere, it will be essential to initiate programs that are less capital-intensive.

b. United Africa Company Training Programs

The United Africa Company (UAC) was one of the first foreign firms to operate in Nigeria. Today the holding company plays a dominant role in the Nigerian economy because it owns, either fully or partially, 41 companies that operate in nearly all aspects of the non-mining economy. As the largest employer in Nigeria, UAC's policies are of major consequence to the Nigerian economy.

A diversified company like UAC requires a wide range of trained personnel. Ideally, its training programs should cover all grades of personnel. The management training policy, however, is of the greatest importance to the company and to the Nigerian economy. Management training policy determines not only the company's effectiveness but the extent to which Nigerians participate in critical decision-making.

Management Development and Training Policy

Management development and training policy is described in the company's annual review of management. Future management requirements, based on expected expansion of production, are given. These estimates are followed by a detailed study of each manager—his capabilities and the role he is likely to play in the next three years. This kind of information helps the company to determine what kind of training is needed for the future. Attention is also focused on staff below the management level. An attempt is made to identify individuals who, with training, can perform some of the managerial functions anticipated for the near future. The type of training required for this level of employee is determined by analyzing present managers and anticipating their future assignments. The company schedules training and plans recruitment for three to five years. This planning is done at the highest corporate level, with necessary consultation among unit heads.

Most of the training consists of learning on the job, with new employees drawing on the knowledge of more experienced staffers. Each year UAC recruits new university graduates from Nigeria and foreign universities (27 were recruited out of the 1971 graduating classes in Nigerian universities as of August, 1971). Trainees receive a year of on-the-job training. Learning on the job is a continuous process that affects all levels of management. Sometimes, a portion of the manager's training involves taking a position at another operating branch in the same unit, in another town, or occasionally in some operating branch of another unit in the UAC group of companies.

UAC managers are sometimes released from work and sent on short courses either in Nigeria or abroad. The company has been sending its managers to such Nigerian institutions as the Continuing Education Center of the University of Lagos (which runs courses ranging from a few days to a few months), Yaba College of Technology, the Kaduna Polytechnic College of Science and Technology, the Nigerian Institute of Management, and the Nigerian Employers' Consultative Association. In order to accelerate training, UAC recently established its own management training center.

The UAC Group Management Training Center, Lagos

The Center has one full-time instructor. Other instructors come mainly from within the management cadre of the UAC group and sometimes from Nigerian universities or the Yaba College of Technology, Lagos. The Center provides short courses in management and supervisory skills. Some courses are tailored to suit the demands of specific units within the UAC group. Although most of the courses are on a high level, occasionally courses are designed for such people as driver-salesmen in vehicle maintenance. It is estimated that 378 members of the group attended courses at the Center in 1969. The company spends an estimated $36,400 a year to run the Center.

Summary of 1969–70 Program

Course Title	*Number of Courses Given*	*Target Audience*	*Length of Each Course*
Development	4	Junior Management or Senior Supervisors	3 weeks
Supervisors	4	All Levels of Supervisor	2 weeks
Technical Supervisors	2	Technical Supervisors below Management	2 weeks
Personnel & Industrial Relations	2	Middle Management	1 week
Commercial	1	Middle Management	1 week
Marketing	1	Middle Management	1 week
Senior Accounts	2	Senior Account Clerks	3 weeks
Basic Communication	1	Supervisors	½ week
Advanced Communication	1	Senior Supervisors to Middle Management	½ week
Basic Sales	1	Junior Salesmen and Sales Trainees	1 week
Advanced Sales	1	Senior Salesmen and Sales Management Trainees	1 week

The impact of management training at UAC can partially be evaluated by examining the rate of Nigerianization in the management cadre. If we assume that Nigerians are performing at similar levels of efficiency as the expatriate staff they replaced, the company's rate of profitability should increase as a result of reduced wage costs. (Expatriate staff cost more than comparable Nigerian staff.) As a result of various management training schemes, the ratio of Nigerian managers to total managers at UAC rose from 40 per cent in 1965 to 60 per cent in 1971. An almost 100 per cent rate of Nigerianization is feasible within the training procedures now in operation.

Training procedures employed by the UAC group constitute a model that other fairly large institutions can copy. These training procedures should accelerate the Africanization of managerial positions in private industry, and thus lead to a more harmonious and stable relationship between private industry and African governments.

Technical Training

Although management training is of greatest importance, it is also essential to develop effective training programs at lower levels. The UAC group started training lower technical grades of personnel more than 15 years ago. The company's Technical School Burulu, Mid-West Nigeria, later moved to Aba, Eastern Nigeria, and now in Apapa, a suburb of Lagos, forms the basis of this training. The school offers a two-year course, usually for graduates of Government Trade Centers, although occasionally for students who have finished secondary school or need one more year to finish. Courses are aimed at providing general technical training that can be built on later, on a more specialized basis. The course provides mechanical engineering training for apprentices, craftsmen, and technicians. The school caters to all units in the UAC group. Students are paid $296.80 in the first year of training; they also receive food and living accommodations. In the second year, students receive $336, plus room and board. At the end of their training, students are assigned regular jobs.

The school also runs two-month booster courses for fitters, machinists and welders already in regular employment. The company spends $64,400 annually on the school.

The company complains about having lost many graduates of its technical training school to other companies. Partly as a result of this, some units within UAC are running courses that are more tailored to their specific operations. This reduces the danger of losing employees, but it also means that training may become too narrow.

The technical school training has produced greater efficiency in the performance of jobs and has made it possible to reduce the number of workers in some fields without reducing productivity. This greater efficiency, of course, can be seen as conflicting with the national goal of increased employment. Some technical school trainees, after further on-the-job training, have risen to management levels. At the craftsman, artisan and technical personnel levels, the rate of Nigerianization of jobs is almost 100 per cent.

Conclusions

The two UAC training schools, the company's use of other institutions, and its on-the-job and overseas training constitute an elaborate machinery that enhances the value of formal education or helps to compensate for those who do not have adequate formal education. In this sense, the UAC training program constitutes a useful model that could be adopted not only by Nigerian companies, whether private or public, but also by other African countries. Although the UAC has the advantage of size and resources, and other institutions may be unable to afford to run two schools, certain aspects of the UAC training program can be easily copied by other organizations.

PART
III

Training Programs for Out-of-School Youth in Rural Areas

MAJOR CASE STUDY NO. 2

BOTSWANA: BRIGADE TRAINING

Background

Brigades are training programs for youth in Africa. The term was first used in connection with Ghana's builders' brigades, founded by Kwame Nkrumah in the late 1950's. (These brigades have continued on a lesser scale since the 1966 Ghana coup.) The brigades in Botswana, less ideological than those in Ghana, have attracted a great deal of attention because they provide vocational training to school-leavers at little or no cost to the government and because they make innovative use of scarce resources.

The Brigade Movement has taken on many attributes of a religion; it has a creed, a talented and committed group of disciples and even a messiah, Patrick Van Rensburg, now largely removed from the day-to-day running of the brigades.

Van Rensburg, a South African by birth, once served in the Republic's diplomatic corps in the Congo. He fled South Africa in rejection of apartheid in 1962 and took up primary-school teaching in Serowe, Botswana's largest town. In the next year, Van Rensburg and his wife established Swaneng Hill School, the town's first secondary school. They had practically no outside support and relied mainly on the volunteer labor of both students and staff. A fascinating account of the school's development is set forth in Van Rensburg's book, *Education and Development in an Emerging Country* (Uppsala, 1967).

From the outset, Swaneng Hill School was oriented towards the poor rural community. Eschewing the traditional academic pattern often found in Africa, the school was guided by certain new principles:

1. Selection would be based on a first-come, first-served basis rather than on academic examinations;
2. Students would contribute voluntary labor rather than pay fees;
3. Staff—at least during the initial years—would be primarily recruited from overseas volunteer organizations;
4. Training would emphasize skills related to rural Botswana;
5. Academic subjects would not be neglected, but the school would include a greater emphasis on the development of Botswana. "Develop-

ment Studies" was the name given to a required course that focused on actual development problems of Botswana—economic, social, cultural, etc.;

6. Recurrent costs would be covered by self-help and by income derived from work done for outside agencies.

A blending of the last two goals led to the creation of the first Builders' Brigade at Serowe in 1965. Brigades were a logical outgrowth of the Swaneng Hill experience; they provide a cheaper means of giving primary-school-leavers an opportunity to find employment or to be more productive in self-employment. Anthony Martin's "Report on Brigades in Botswana" is a principal source for the following account.

Description

Since 1965, the brigades have grown dramatically; in 1971, there were 31 brigades with about 850 trainees. Training concentrated on such areas as building, carpentry, farming, handicrafts, mechanics, textiles and tanning. Ten of the brigades are under the jurisdiction of the Swaneng Hill Board of Governors (which now runs a second school at Shashi River) and the rest are divided between local councils and the Department of Community Development, the Botswana Government agency that oversees family welfare and other social programs.

Fees in most brigades average $21 per year. Training generally lasts three years and consists of vocational training, academic education (mostly English, mathematics and development studies) and work. In addition to fees, trainees contribute their labor and the value of whatever goods they produce.* In most brigades, the educational component takes about 20 percent of the time; by the third year, trainees are generally considered to be productive in the sense that they are paying back part of the cost of their training.

Builders' Brigades

After six years, the Serowe Builders' Brigade has broken even in terms of recurrent expenses. Between 1966 and 1969 the Serowe Brigade completed some $112,000 worth of projects; about one-third of this work was done for Swaneng Hill School. The Builders' Brigade at Shashi River has also benefited from its association with the secondary school, but gradually both brigades have moved into general contracting jobs in their communities. The 1969 recurrent expenditures of the Serowe Builders' Brigade show that the budget involved was extremely low.

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* Much of the above analysis is taken from an unpublished background paper by Clifford Gilpin of Teachers College, Columbia University and the International Council for Educational Development, 1971.

Serowe Builders' Brigade

Recurrent Expenses—1969

A. Trainee expenses	
Food	$ 4,254.60
Technical instruction	10,136.80
Student transportation	1,709.40
Building and equipment	179.20
Tools for trainees	561.40
Textbooks	112.00
Academic teaching	701.40
Subtotal	$17,654.80
B. Business expenses	
Administration	$ 442.40
Workshop charges	354.20
Transport of material	1,120.00
Supplies	136.60
Tools for brigades	404.60
Subtotal	$ 2,457.80
Total	$20,112.60

These expenses averaged out at 92 cents per trainee per day (figuring a five-day week and an 11-month year); the Serowe Brigade charged $1.04 per trainee per day in its job estimates. This left a modest profit margin of 11 per cent. But because trainees spend an average of one day a week in academic education, the actual cost per trainee per day worked out to $1.33, or roughly 30 per cent above the amount charged. These expenses do not take the critically important contribution of expatriate staff into account. Although Botswana's heavy reliance upon expatriates will decline as more Batswana are trained, the problem of getting highly trained, committed staff to work in remote rural areas will not be easily solved. For a long time to come, it will be easier, and cheaper, to recruit expatriates.

In contrast to the Builders' Brigades at Serowe and Shashi River, the Brigade at Lobatse receives grants from the Community Development Department and does not aim at covering recurrent costs. The Lobatse Builders' Brigade, however, has remained cost-conscious and has become extremely efficient in competing with local contractors. The Martin report notes that the Lobatse Brigade's close links with the local town council have more than compensated for its lack of ties with a secondary school. Thus far about 70 per cent of total work completed has been contracted through the town council. The key to Lobatse's success most likely can be traced to the leadership of its directors, first a Peace Corps volunteer and now a Motswana.*

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* The term Motswana refers to a person from Botswana; Batswana is the plural, referring to several Motswana.

The Lobatse Brigade currently charges 99 cents per trainee per day worked, which enables them to underbid local contractors consistently. This price, however, covers only 60 per cent of recurrent costs. Remaining costs are met by the Community Development Department and the Peace Corps.

Because of the considerable demand for trained builders in all of the towns in Botswana, builders' brigades have thus far had a favorable cost-benefit ratio. Martin estimates capital costs at only $70 per trainee for basic tools and equipment. Thus far, trainees have easily found wage employment, but the demand for builders will eventually slacken, highlighting the critical question facing all pre-vocational training programs—can they stimulate increased productivity among the self-employed? In a poor country like Botswana, with a small and scattered population, the growth of self-employment opportunities will be rather slow and mainly limited to the few urban centers. For the time being, however, enough of the labor force is non-Batswanan and the growth of the economy is sufficient to generate demand for skills.

An experiment to encourage good work habits was made by the director of the Kanye Builders' Brigade. He offered cash incentives to trainees who completed projects ahead of schedule. Preliminary indications are that such incentives help to develop a trainee's sense of responsibility, rather than simply treating him like a student until he must compete with other workers in the job market.

Textile Brigades

There is a great need for expanded training opportunities for young women throughout Africa. A workshop was established at Serowe in 1967 to give girls a two-year course in spinning, weaving, and dressmaking. Shashi River introduced a similar course in 1969 and both establishments have now added printing and dyeing to their program. Capital costs are about $280 per trainee at Serowe and about $140 at Shashi River. In addition, it costs $84 per trainee for accommodation in brigade-built rondavels.

Martin estimates the Serowe Brigade's expenses at $1,400 per month, assuming an enrollment of 120 girls. Thus far neither textile brigade has been covering its costs, and initial efforts to place trainees in jobs have been discouraging. After some of the girls had difficulty finding jobs, a group of trainees formed a marketing cooperative called "Unity Workshop." Although it is still under the supervision of Swaneng Hill, the workshop managed to pay its five to seven girls (numbers continue to fluctuate) some $25 per month in wages, while registering a small profit. Although the quality of the cooperative's products has remained high and the emerging tourist market in Gaborone and Francistown is being explored, marketing (and thus employment) has been the main difficulty in the textile brigades.

Farmers' Brigades

Botswana, like most other African countries, depends primarily upon agriculture for support of more than 80 per cent of its population. Despite the clear need for technical skills in the modern sector, the greatest challenge to those concerned with training lies in agriculture. A farmers' brigade was established at Serowe in 1967 to train 80 students per year (subsequently reduced to 40) for careers in farming based on livestock raising.

Because of Van Rensburg's efforts, some $210,000 was raised from the Danish Government (roughly $1,500 per trainee) to meet the capital costs of starting a beef ranch. This money also underwrote projects in dairy farming, chicken raising and small stock raising (Angora goats to produce Mohair for the textile workshop). Work was also done in irrigation, growing of fodder crops, and dry-land farming. The Farmers' Brigade at Serowe, however, faced a number of problems:

1. Beef ranching—the most profitable agricultural pursuit in Botswana—requires considerable capital but little labor.
2. A severe drought ruined initial efforts at dry-land farming.
3. Dairy processing requires a sophisticated understanding of pasteurization, hygiene, and packaging, as well as access to a market. Serowe had none of these.
4. Motivation remained a major problem. Trainees wanted certificates (in hopes of obtaining wage employment), despite constant statements that their training was to lead to some form of cooperative settlement.
5. Local tribal authorities refused to make land available for establishment of the cooperative.
6. The cooperative settlement would not have generated sufficient income to allow the project to pay for itself.

The Farmers' Brigade at Shashi River has avoided some of these problems. It purchased land from a private owner, and its location near Francistown provides it with a convenient market for produce. Still, the problem of establishing a cooperative settlement for the program remains. The third farmers' brigade, at Mochudi, was designed to train 20 students in improved farming and animal husbandry techniques. It was intended that trainees from this brigade return to their family farms after completing their training.

The Martin report devotes considerable attention to the problem of farmers' brigades, particularly to the question of post-training settlements. The trend at Serowe and Shashi River, the report notes, is towards what has been called *in situ* schemes. In such a program, land is set aside for trainees when they are recruited; training is divided between the central brigade farm and the trainees' settlement farm. In striking similarity to the Vocational Improvement Centers and other projects noted in this report, the farmers' brigades are increasingly locating post-training positions *before* training starts. This approach necessitates close links with the local community (another recurring theme in our case studies) to get them to make greater contributions in terms of land, cattle, or, in some cases, capital.

Another farmer's brigade, under the direction of the Swaneng Hill Board of Governors, is being set up at Mabeleapudi, a small village 20 miles north of Serowe. After extensive discussions with the Village Development Committee, trainees were nominated and land was allocated for the *in situ* settlement. Although the precise nature of the Mabeleapudi program remains to be seen, the local community has been much more involved in the project's development than was the case at other brigade locations. Community involvement in brigade activity is not problem free. In Botswana, land ownership is mostly communal, making the introduction of certain modern agricultural and livestock practices difficult.

Martin estimates the capital costs required to generate sufficient surplus to cover the costs of training 30 to 40 young people are as follows: $105,000 initial capital; $14,000 initial losses and working capital; and an $8,400 loan from the Botswana Meat Corporation.

Of this $127,400, some $37,800 represents the cost of cattle and oxen. Thus, if livestock can be contributed by local sources, project costs can be greatly reduced. These estimates do not include the cost of starting a dairy—estimated at another $35,000—nor do they take the salaries of expatriates into account.

Other Brigades

Brigades for mechanics, handicrafts, leather tanning, printing and hotel keeping are being developed. Most of these lie somewhere between the relatively inexpensive builders' brigades, which train for wage employment, and the costly farmers' brigades, which have a more ambitious goal of training for the operation of agricultural settlements. Swaneng Hill has developed a mechanical brigade that relies heavily upon Oxfam, a British private international assistance group, and other external donors. Although there is no other program of technical training at this level in Botswana, there is a problem finding enough mechanical work to keep trainees occupied.

Because livestock raising will remain the chief occupation of most of the people for some time, the potential of leather tanning is enormous. Swaneng Hill pioneered in setting up a tanning brigade, recruiting an extremely well-qualified Motswana instructor.

The Lekgaba Workshop in Francistown was started as a community development project to encourage local handicrafts. After several years, it employs five staff (two of whom are Peace Corps volunteers) and trains about 15 young people, under the direction of five artists in residence. These artists receive 60 per cent of the proceeds from goods sold through the workshop's marketing facilities. This arrangement is an effective way of utilizing local skills and of keeping trainees in contact with the realities of the market, but it should probably not be considered a brigade so long as it receives a subsidy from the Community Development Department.

Relationship with Government

Brigades must cover their costs if they are to be expanded for the bulk of the population. Many expatriates involved in privately sponsored brigades have expressed apprehension concerning Government takeover of the brigades, although these same people are often critical of the Government's lack of commitment to the Brigade Movement. These expatriates fear that bureaucratic regulations would stifle flexibility and discharge innovation.

The problem of institutionalizing and nationalizing what are essentially localized projects is not easily resolved. On the one hand, it is important for the Government to try to integrate various projects within an overall strategy and to minimize duplication of effort. On the other hand, national governments cannot keep up with changing local needs, nor can they generate sufficient resources to support expanding non-formal education programs. The National Brigade Coordinating Committee (NBCC) in Botswana is an attempt to solve these problems.

The NBCC consists of representatives of the various brigade centers and of the relevant Government departments (including Community Development, Development Planning, Personnel, etc.). The Committee's full-time, voluntary secretary is in the Ministry of Education, which assumes overall responsibility for the Brigade Movement. As of October, 1971, a full-time accountant was added to the NBCC. He was given responsibility for coordinating the brigades' finances. The Committee's objectives are:

1. To coordinate the activities of all youth training brigades.
2. To advise on the establishment of new brigades, with regard to type and location.
3. To organize the provision of common services for brigades.
4. To make recommendations on curricula, training, entrance requirements, fees, staff conditions, trade testing and standards.

Translating these objectives into practice raises a number of complex jurisdictional issues, and the Martin report concludes that the NBCC may have served more to squash proposed developments than to encourage innovation. The fact that the secretary of the NBCC does *not* sit on the Swaneng Hill Board of Governors or on the planning committees of the Community Development Department (the two main brigade sponsors) is an indication that the coordinating mechanism is far from perfect. It is encouraging, however, that the NBCC will be represented on the newly established Botswana National Youth Council.

As brigades develop, they will have to clarify their relationships with such institutions as the Botswana Training Center, the Botswana Agricultural College, Rural Training Centers, and the University of Botswana, Lesotho and Swaziland Department of Adult Studies. Both the NBCC and the National Brigade Staff School, a recently proposed staff training center, should play a central role in this process.

During August and September, 1971, the first in-service training programs for brigade instructors were held at the Mahalapye Rural Training Center. Financial support came from the Botswana Christian Council. Twenty-eight instructors attended the 10-day course in carpentry, building and mechanics. Some 33 instructors from the textile, farmers, leatherworkers and handicraft brigades attended the second course.

Government's Role

Government plays an important role with regard to external financing. As in most African countries, all requests to donor agencies are channeled through the Ministry of Development Planning. This helps ensure that all development projects can be integrated within an overall strategy. The Swaneng Hill complex has demonstrated its ability to raise impressive amounts of outside capital. The ability of the Government to raise money for other brigades has yet to be demonstrated.

The relationship of brigades to the Ministry of Education and to Botswana's secondary schools has not been clearly defined. Through its newly established Division of Vocational Training, the Ministry of Education has the opportunity to integrate "education" with "training" (the latter usually being the responsibility of the Ministry of Labor). The Martin report notes that the Ministry of Education should play a more active part in enhancing the prestige of brigades, particularly in the eyes of primary-school students. The rationale for linking brigades and secondary schools is based on three objectives:

1. To help break down the social gap between academic students who aspire to wage employment and the vocational trainees who must usually settle for a lower socio-economic position.
2. To take advantage of the considerable concentrations of talent found on, or near, a secondary school compound. Teachers of academic subjects, and their wives, are often willing to assist in various brigade activities.
3. To provide a ready market for the brigades' products. The Swaneng Hill and Shashi River Brigades at first produced goods primarily for the secondary schools. Once the demand from the secondary schools tapers off, however, the programs may find it difficult to locate markets.

The success of the Lobatse Brigade indicates that links with the local council may be at least as important as ties with secondary schools, especially after the artificial demand of the schools for brigade products slows down.

Relationship with Local Communities

As proponents of *Animation Rurale* in Senegal, *Ujamaa* villages in Tanzania and other grassroots, self-help programs have discovered, local initiative (the key to these approaches) does not always coincide with the aims of "assisting" institutions, both public and private. There is a fundamental conflict in any community development program between the policies identified by governmental or other funding agencies and the felt needs of the community. Because required services—health, agriculture, transportation, etc.—come from different government departments, coordination at the local level is also a problem.

The need to ensure that farmer brigades produce trainees who will be engaged in productive employment has led to the development of programs in which the adult community participates in planning and makes a contribution (land, cattle, equipment) toward placement of trainees. Van Rensburg is currently working on an experiment in which poor communities pool meager resources in an attempt to stem the flow of cash to the towns for purchase of equipment.

Boiteko

Van Rensburg's latest project is *Boiteko*, a form of communal "swap shop" in which members exchange their labor and the goods they produce for vouchers that can be used in the *Boiteko* store. This store carries only those goods produced by exchange members. *Boiteko* represents a recognition of the point made elsewhere in this report that "training alone does not create jobs." As Van Rensburg says, "We can train builders, but can ordinary people afford to employ them? We can train tanners and leathermakers to make shoes and bags, but will all these things find buyers?"

It is much too soon to assess the success of *Boiteko*, but in poor rural communities it may constitute an effective means of mobilizing peasant farmers into cooperatives. It is unlikely that farmers will buy or sell for vouchers if they can sell produce for money and buy superior quality goods. Because of the financial constraints upon establishing training programs, and the danger of saturating local markets with both skills and produce, the *Boiteko* experiment bears watching as an effort to generate local resources.

Summary and Conclusions

Like village polytechnics in Kenya, brigades in Botswana train for both wage employment and for self-employment. As in other countries, the quality of the vocational training has varied with the quality of staff and with the extent to which the program has provided viable opportunities for on-the-job and post-training employment. The unique characteristic of brigades is their attempt to cover recurrent costs; it is this feature that is most significant for other countries interested in the model. As has been demonstrated, cost-covering is feasible, but with two important qualifications:

1. Expatriate staff must be available and willing to work for minimal salaries. The importance of obtaining such staff is underscored by the fact that it is difficult to get well-qualified Africans to work in remote rural areas.

2. Cost-covering can only work where there is sufficient demand for the skills and products of brigades. In a poor country local demand is severely limited, and the temporary boom in wage employment for builders cannot continue indefinitely. The long-run challenge will be to develop viable farmers' brigades, although these are the most expensive in terms of capital costs.

Botswana also suffers under a serious disadvantage in trying to develop new industries by virtue of its membership in the South African customs union, which floods the country with inexpensive South African goods. This, plus the lack of an adequate local market, places severe restrictions on the expansion of the brigade system. Although it is clearly desirable for brigades to be expanded and integrated into some sort of national youth program, the Martin report seems to be correct in asserting that such expansion would now be premature. Furthermore, the small size of isolated brigades, in contrast to the dimensions of the primary-school-leaver problem, indicates that brigades alone cannot solve the problem.

Because of the importance of local demand, we feel that the brigade model might thrive in areas of Ghana, Nigeria and Central Kenya, where rural marketing potential is much greater than in Botswana. This raises an ironic problem; it would be unfortunate if—like so many other aspects of the development process—brigades remained concentrated only in centers with sufficient resources to support them.

Although the brigades were developed almost entirely by expatriates, the Government of Botswana has continually broadened its commitment to the Brigade Movement. In a speech entitled "Youth and Development in Botswana" in August, 1971, H.E. the President, Sir Seretse Khama, stressed the impact the brigades were having on the entire educational system: "I am particularly anxious that secondary school and university students should not pay lip-service to self-reliance, and leave it in practice to the brigades and other organizations catering to the primary-school-leaver."

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MAJOR CASE STUDY NO. 3

KENYA: VILLAGE POLYTECHNICS

Background

The Village Polytechnic Movement in Kenya was spurred primarily by the first analysis of Kenya's primary-school-leaver problem in the report "After School What?" published by the National Christian Council of Kenya in 1966. This report identified the rapid development of a serious unemployment problem within the primary-school-leaver population—namely that of each year's 150,000 primary leavers, some 40 per cent would neither be able to go on to secondary school nor to find employment.

The NCCK report was later endorsed at an international conference on "Education, Employment and Rural Development" held at Kericho, Kenya, in 1966. The Kericho Conference proposed the establishment of a system of rural village polytechnics to provide primary-school-leavers with skill training applicable to local, rural self-employment. This local emphasis was made in view of the discouraging rate of employment generation in the modern industrial sector. It was further realized that relatively expensive Farmer Training Centers and proposed Rural Industrial Training Centers already provided or would provide some training opportunities for adults in rural areas. It was determined that what was most needed was low-cost, village-based training that specifically met local needs. The NCCK guidelines for village polytechnics spell out the program's aims:

1. Polytechnics should be small institutions, utilizing locally built structures, serving local areas, and taking only day students.
2. Agriculture should be part of every polytechnic's program; students should spend at least part of their working time at their home farm or on their own land, where available.
3. Artisan skills should be taught so that students know how to construct and maintain equipment as farmers and traders. The program's aim is not to produce specialists or semi-skilled artisans who desire wage-earning roles.
4. A functional form of general education (math, language, and social studies) should be provided to enable students to understand their environment more clearly and to develop skills, both as individuals and in cooperation with others, in organizing production, trading and in self-help development.[1]

The initial impetus provided by NCCK and by the Kericho Conference stimulated demands by local church groups for guidance on how to establish local polytechnics. The NCCK, through the experience that its working committee gradually acquired and through the access it had to outside funds, became a center for advice and help. A working committee, including representatives of various ministries, was established. Today this body acts as the coordinating and policy-making unit for the Village Polytechnic Movement. The committee has commissioned several studies on village polytechnics through the Institute for Development Studies at the University of Nairobi. The committee also furnishes advice on curriculum, finances and organization.

In 1971, there were 13 village polytechnics; eight more were being planned. The 13 village polytechnics served about 400 students. The VPs show the following characteristics:

Staff:	The director is usually a school teacher or a local craftsman. Instructors typically have passed Government Grade II or III tests. Many retain business interests in their area, while working part-time at the polytechnic. In many instances expatriate volunteers have helped.
Land:	Polytechnics are located on church or country council land, often adjacent to primary schools or youth centers.
Courses:	Most polytechnics have two-year courses. Centers run several classes each with between 10 and 20 members in a class. Nearly all centers offer some academic instruction, typically English and basic accounting. Most centers also offer training in the standard rural crafts: carpentry and masonry for men and dressmaking for girls. In addition, a few courses such as beekeeping cater to needs that are purely local.
Fees:	Charges range from $8 to $33 per course. Only two polytechnics have boarding facilities.

Support and Funding

The basic support of the village polytechnics so far has been the annual NCCK grant of $1,400 to each of them. In some cases, this has been supplemented by County Council grants and by local church collections, collections from the community at large, occasional donations from commercial concerns and charities, contracts and sale of work, and student fees. In most cases, the village polytechnics could not have survived without the direct aid of the NCCK and the local parishes. Generally, local groups have been unwilling to support rural centers that did not offer training in prestige skills, but the centers' increased ability to secure contracts has resulted in greater local support. One center, for instance, was recently given $400 by the local development committee. Local support of the sort that built and maintains the *Harambee* schools is not yet forthcoming.* Assistance of this sort should be encouraged, but care would have to be taken that the exact aims of the VP be known so that local people did not become disillusioned.

To date, the Government has not directly aided the village polytechnics. This is due to both lack of money and the difficulty in deciding what type of assistance might be most appropriate. Training of staff would seem to be a logical form of government aid. A flexible system of annual grants-in-aid might also be devised. These grants could run between $1,000 to $2,000 per annum per polytechnic. In addition, some sort of coordinating body within the Ministry of Cooperatives and Social Services could take over the functions of the present NCCK working committee. This would alleviate the increasingly severe strain on the resources of this voluntary group.

International aid in the form of volunteers has been of particular help in starting the polytechnics. Expatriates could probably continue in this role, relinquishing their positions to local leaders as the polytechnics develop.

Over-capitalization of these programs is a clear danger. Large professional staffs and expensive buildings lead to inappropriate types of training and to inappropriate student expectations. It is critically important that centers not be made into formal schools, providing a certificate for prestige but little of practical value. One director noted that centers should serve as advisory bodies from which "students never graduate." He envisioned that students would master a skill but would maintain a continuing relationship with the center, returning often for advice and support. Firm establishment of centers in students' home villages facilitates this integrated approach.

Cost-Benefit

One of the chief attractions of the village polytechnics is their apparent low cost. According to NCCK statistics collected in June, 1969, annual recurrent costs (discounting boarding arrangements) ranged from $146 per student per annum to $31 per student per annum. John Anderson's 1970 report, "The Village Polytechnic Movement," gives a rough estimate of costs for a polytechnic of 30 students.[2]

Staff costs – principal at $85 per month	$1,020
– instructor at $42 per month	504
Maintenance and improvement of buildings	114
Depreciation and replacement of tools	90
Equipment, less cost of sales per student	80
Books, manuals, etc. $3 per student	90
Travel and supplies	214
	$2,112
Cost per student	$ 70

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[*] The term *Harambee* has become the Kenya national motto meaning (in Swahili) "let's all pull together." *Harambee* schools refer to self-help secondary schools established by local communities to provide an opportunity for students who are unable to attend government-supported schools.

This cost of $70 per student per year compares with a cost of $23 per student per year at a typical primary school and costs of between $130 and $150 per student per year at a rural secondary day school.

Capital costs are difficult to assess. There is a natural desire to see progress or development in terms of permanent buildings, but so far, most village polytechnics have avoided this so-called "edifice complex." Land has generally been donated, and temporary buildings have sufficed. There has been a tendency to combine recurrent and capital expenses by getting masonry and carpentry students to erect permanent buildings as part of their courses.

Management at the Local Level

Initially at least, most polytechnics borrowed heavily from the traditional model of the school, with its permanent buildings, formal classroom instruction, workshop lessons and structured program. The necessity to keep costs down and to stay close to rural conditions has resulted in less formal and more flexible approaches at some centers.

VPs vary between general tendencies towards a lot of centralization or decentralization; most, however, lean toward the centralized model.

Highly Centralized	**Decentralized**
Activities mainly based in the institution. Students come to staff.	Activities based mainly outside institution. Staff go to students.
Students' initiative relates largely to the needs of the institution.	Student initiative relates almost entirely to own needs.
Timetable and curriculum laid down and strictly adhered to.	Training takes place largely as part of an occupation student finds for himself.
Opportunities for learning outside curriculum given little priority.	

The *Harambee* school model of local, self-help, institution-building seems to have been followed in the early VPs. These institutions, like schools, tended to produce students interested in seeking wage employment way from their communities. They thus emphasized the distance between the local life-style and that of the school. As the theme of "education for self-employment" has become accepted, however, the realization has grown that students must be produced for the local economy. Thus unity with the community is now being emphasized. In the newer polytechnics, for example, there is less formal instruction; more attention is paid to problems on the students' home acreage. This sort of development has been encouraged by polytechnic evaluators and by the NCCK; both see the local, less formalized emphasis as a means of cutting recurrent costs and of moving the VPs toward cost-covering performance.

Target Population

The VP target population consists of those whom the 1966 NCCK report identified as the most problematic group—primary-school-leavers in the rural areas who do not have the fees, or in some cases the ability, to continue on to secondary school or to other training. An exploratory survey conducted by David Court of the Institute of Development Studies details some of the characteristics of this population.[3]

Social Background. Most trainees live at home, in close proximity to the training center. Only nine per cent of the students are from an area outside the immediate location of the center. Protestants outnumber Catholics by 2 to 1. Virtually all trainees are primary-school-leavers. They are almost equally divided between those who have passed the Kenya Preliminary Examination (KPE) and those who have not. The highest percentage of trainees passing the KPE reported at an individual center was 75 per cent, the lowest was 28 per cent. The fathers of most trainees do not hold positions of responsibility. Of those that do hold such positions, the most commonly held was that of church elder (18 per cent); primary school committee member was next at 14 per cent.

Economic Background. Fees are provided by the father (68 per cent), although brothers who are employed in town also help out (16 per cent).

The survey attempted a preliminary measure of the socio-economic status of students' families. It was found that 34 per cent of the fathers of students were engaged in paid employment; 84 per cent owned land, with individual holdings averaging less than five acres. Seventy per cent grew cash crops of some sort. Only 18 per cent of the students' fathers owned cattle, and only 10 per cent had completed primary school. Of the 382 trainees surveyed, only six fathers had had any secondary school education. Given the variable productivity of land in different areas, cattle ownership is probably the best gauge of wealth.

These characteristics indicate that the trainee population in the polytechnics is definitely of an impoverished socio-economic background. Trainees' fathers rarely have significant social status in their villages, and they have had almost no formal schooling. Their ability to initiate and sustain local polytechnics is therefore all the more remarkable, and gives the lie to the supposed apathy and hopelessness prevalent in backward rural areas.

Occupational Expectations of Trainees. The expectations of trainees, as detailed in the study, are also encouraging. The largest category of VP trainees expects to be self-employed; another 15 per cent explicitly states an expectation to apply skills acquired at the VP. Combining these categories, it appears that almost half the total sample has a relatively *precise* and *realistic* idea of prospects on leaving the VP.

Curricula

Anderson's 1970 survey provides the best data on curricula. Anderson surveyed 16 polytechnics. Of these, 14 offered formal courses. The other two did not give formal courses, but worked with students at their farms. The following table is divided into Formal Polytechnics and On-the-Job-Learning Polytechnics.[4]

A. Formal Polytechnics

Subjects Offered:	*Number of polytechnics offering course*
Craft/skill	
Carpentry	12
Masonry	7
Tailoring (Male)	7
Tailoring/dressmaking (Female)	2
Domestic science, including baking and some dressmaking (Female)	5
Typing	1
Bookkeeping	5
Signwriting	1
Tanning	1
Tinsmithing	1
Bicycle repairing	1
Agriculture	
Farming	10
Animal husbandry	1
Academic Subjects	
English	11
Mathematics	10
Drafting	3
Science	1
Hygiene	2
Civics	5
Religion	7
Swahili	1
Physical education	8

B. On-the-Job-Learning Polytechnics

Subjects Offered:

At Soy: Bookkeeping
Well digging
Baking
Carpentry/beehive making
Tinsmithing
Poultry keeping
Agriculture
Masonry
At Karima: Carpentry and Quarrying

The above tables demonstrate that there has been a heavy emphasis on the traditional basic skills of carpentry, masonry and tailoring.

Employment Opportunities

A survey of three village polytechnics done in 1969 showed that 65 of 127 polytechnic-leavers, or 58 per cent, stayed in and around their own district after leaving the VPs. Figures covering those who stayed at home in two other polytechnics are also available. The following tables are broken down by decision to stay or leave the home area.[5]

A. Occupations of Polytechnic-Leavers Remaining in Home Area (five polytechnics)

	Per cent
Independent work using skills learned	25
Local employment using skills learned	31
Other work	10
At home	11
Repeating primary school	7
Unknown	16
	100 per cent
Total Number of Sample	128

B. Occupations of Polytechnic-Leavers Not Remaining in Home Area (three of above polytechnics)

Employment using skills learned	18
Other work	25
Looking for work	16
Further training	25
Secondary school	16
	100 per cent
Total Number of Sample	58

Within the home areas, then, Table A shows that a majority (some 56 per cent) of the leavers are using their skills locally, either working for others (usually in local cooperatives) or in self-employment. If this number is combined with those who have found skill-related employment outside the home area, it becomes clear that 45 per cent of all leavers have been able to use their skills to find employment of some kind.

Two Case Studies

The following two case studies illustrate two different approaches to polytechnic theory and practice. Mucii Wa Urata is situated in a prosperous rice-growing area, is highly capitalized, and produces leavers skilled in conventional rural trades. Soy is in a much less prosperous area, has a thin budget and is oriented toward helping school-leavers who wish to initiate projects on their own.

1. Mucii Wa Urata*

Staffing: One warden, four instructors and one Danish volunteer.

Finances: (Budget) The NCCK's 1969 "Preliminary Analysis" of village polytechnics listed the following sources of Mucii's income:[6]

Source	Per Cent
NCCK	57
Government departments	4
Local donations	1
Sale of work and contracts	28
Fees	8
Other	2
	100 per cent

In addition, equipment worth some $280 was donated by the Ministry of Cooperatives and Social Services. The overall income came to around $2,700. By mid-summer of 1971, some $2,700 had already been received in direct grants, exclusive of income from fees and work contracts. This sum was derived as follows:

Mwea Rice Irrigation Scheme	$ 300
NCCK	1,000
Ministry of Cooperatives and Social Services	1,400
	$2,700

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* The name is Kikuyu and means "home of friendship."

If, as seems probable, fees and contracts produce their usual percentage of income, another $900 can be added. This would mean an income of some $3,600 for this VP, even if no other grants are received. But with recurrent expenditures running well over $6,000 a year, the VP is not likely to cover its costs. Much of the costs represent salaries for the relatively extensive staff and upkeep of the expensive equipment, particularly vehicles (one Land-Rover and one Peugeot station wagon, two tractors and two motorbikes).

Fees

Fees are as follows:

Room and board at $8.50 per term for three terms (one year)	$25.50
Tuition for one year	28.00

Day students pay $28 per term; boarders pay $53.50 for a year's training at Mucii. Contracts are another source of income. Present contracts include construction of doors and windows and the sewing of uniforms for schools.

Courses and Attendance

Except for the special three-week tractor-driving and poultry-keeping courses, most courses run from six months to two years. In a two-year course, the first year is spent training at the center, either as a boarder or as a day student. The second year is supposed to be spent in the field under contract, typically through an arrangement worked out with the rice scheme farm. Instructors from the VP supervise this apprenticeship. Apprentices receive support from their sponsors; a percentage of this support goes to the VP as well. High fees have led to a considerable number of students leaving before the second year, but most of those who have left have been able to utilize what training they received to find employment. Figures were not available on students currently in the field, but at the center, students were enrolled in the following courses:

Masonry (two years)	26
Carpentry	12
Typing and bookkeeping (six months)	5
Dressmaking (one year)	20
Mechanics and tractor-driving (seven months)	8
Poultry (two weeks)	4
Nutrition (two weeks)	4

Of the 55 leavers Mucii has produced since 1969, 20 are self-employed, 16 are in wage employment, one is in school, one was expelled from school, three are unemployed, the whereabouts of five are unknown, and nine dropped out before completion. Of those who were employed, most remained in the local area.

Comment

The basic orientation of Mucii remains somewhat at odds with NCCK guidelines. The interest in attracting boarders and the construction of dormitories means that the VP may not be looking after local needs. Another danger is that the apprenticeship arrangement with the rice farm may serve to build the self-sufficiency of the polytechnic at the expense of the self-sufficiency of the trainee. The work at Mwea is rather like contract labor; it does little to train the student in the marketing skills and initiative needed for local self-employment. In addition, the formal nature of the instruction and the high capital input add the dangers of alienation of students from community and demand for certificates in return for high fees.

2. Soy

The VP at Soy operates on a far more modest scale than the VP at Mucii Wa Urata.[7]

Staffing

The director, a former farm manager who is presently with the Christian Rural Service, constitutes the only full-time staff. NCCK money has enabled him to hire a carpentry instructor for one course.

Finances

Because of the newness of this program, specific cost and income figures are not available. The director's emphasis on extension work rather than formal courses at a center has meant an exceptionally low-cost VP.

The only fees charged are for registration ($4.25) and for tools ($2.80). Thus, parents and students do not feel that they must receive something tangible—e.g. uniforms, food, special trips and activities. Students live at home and responsibility for food, clothing, and housing remains with their parents.

Courses and Attendance

Despite having the smallest VP staff in the country, the director, Rev. Shadrack Opoti, has initiated the widest variety of training. This has meant the best adaptation of training to local needs of any VP. Tinsmithing, rabbit-keeping, baking, bee-keeping and well construction are taught, in addition to carpentry, masonry, and agriculture. Some examples of how training is suited to local needs follow:

1. In the Soy-Lugari area, people had to look to the neighboring town of Eldoret to buy bread. The need for Soy-Lugari to have a bakery of its own was evident, and four young men in the VP began training as bakers.
2. As farmers began to express an interest in replacing mud and wattle huts with permanent structures, the demand for carpenters and masons increased. NCCK paid the salary for a carpentry instructor, and 33 boys were scheduled to begin training in 1971.
3. Tinsmiths and metal workers were virtually non-existent in the Soy-Lugari area, yet almost every family made use of metal hardware and housewares such as charcoal burners, water buckets, etc. Eight boys trained in the VP center now work, on their own, as metalsmiths.

Comment

Several of the program's salient characteristics are:

1. A continuing link of students (trainees) with home and village community.
2. A direct connection between new skills and the needs of the community. Enterprise geared to development goals.
3. Minimal costs and locally based, decentralized structure

Soy avoids the pitfalls of over-institutionalization by staying small. A principal difficulty of such a small program of individualized extension work is that it can serve only a few people, an unfortunate condition considering the accelerating school-leaver problem. One solution might be to offer instruction that encompasses a wide range of subjects and follow-up extension work, specifically tailored for local needs.

Conclusions

At this stage it is difficult to assess the potential impact of village polytechnics. Like brigades in Botswana, they are gradually recognizing that expensive training programs leading to wage employment cannot meet the needs of rural Africa. VPs are an encouraging sign that parents and youth will support local, low-cost projects leading to self-employment, but over-optimism would be premature.

A number of broad, overlapping problems remain:

1. How to integrate VPs within the broader context of rural development so that employment opportunities and other crucial incentives can be generated.
2. How to provide coordination and planning at the national level without stifling local initiative and self-help.
3. How to expand the scope of VPs without losing some of the flexible, individualized aspects of the Soy program.

4. How to generate local financial support without relying on high fees or on oppressive apprenticeship programs.

As is the case in Botswana, over-expansion of such school-leaver training programs may saturate local demand for skills. The key to success will remain the ability of each VP to relate itself to local needs. The Government of Kenya has been cautious about taking over responsibility for VPs and is wisely concentrating on providing such supportive services as research and training of instructors.

Perhaps the safest conclusions one can draw about village polytechnics at this time can be found in the introduction to a paper by David Court:

> ". . . Village polytechnics, far from being 'obvious' panaceas for large-scale rural development, are unproven instruments of anything beyond the ability to occupy a handful of primary-school-leavers for a period of time. Yet . . . as village polytechnics may represent the first sign of demand for fundamentally new, rurally based . . . training, their experience may provide important lessons which can be generalized to the widespread and long-term problems of combating underemployment."

Notes

1. As quoted in "The Village Polytechnic Movement" by John Anderson, Institute for Development Studies, University of Nairobi (1970), p. 11.
2. Adapted from Anderson, pp. 24, 25.
3. cf "Some Background and Attitude Characteristics of Trainees at Village Polytechnics: A Provisional Report" by David Court, Institute for Development Studies, University of Nairobi (1971), pp. 2–4.
4. from Anderson pp. 7, 8.
5. These tables are a reformulation of NCCK data contained in Anderson pp. 15–15a.
6. 1969 data in this section derives from the "Preliminary Analysis and Conclusions—NCCK Sponsored Village Polytechnics" contained in the *Village Polytechnic Handbook* by the NCCK (1969), pp. 40–52. 1971 data obtained by on-site visit.
7. cf S. Opoti's article in the VP Handbook and Anderson, p. 8.

BRIEF CASE STUDIES

1. CAMEROON

Zones d'Activités Communautaires et Culturelles (ZACC)

The National Office for the Zones of Community and Cultural Activities in Cameroon (ZACC) was established in late 1969 under the Ministry of Youth and Sports. The program was intended to promote community development projects in pilot regions throughout Cameroon. Projects were designed to teach rural youths to work together in a cooperative environment, to increase agricultural productivity, to teach crafts and trades useful in a rural environment, and to teach civics.

One of the primary goals of the program is to counteract the rural-urban migration by establishing viable rural economic units. It is hoped that 125 of these rural economic zones will be set up by 1975. As of 1971, there were 17 such projects. Each project involves between 50 and 80 youths. Most trainees range in age from 18 to 25, but youths over 12 are eligible for the program.

The youth program is the primary phase of this development activity. Another phase is the training of functionally literate adults, helping them to resolve village or community problems.

Staff and Curriculum

Each zone is headed by a director who has been trained at the Institute of Youth and Sports or by a community development worker who each year receives two weeks of retraining at the national level. Each zone also has one civics instructor.

Agriculture and trade training for youths generally lasts two years. The regional agricultural technicians in an area help the regional offices of the ZACC decide what crops can best be produced in that area. A development worker then teaches the pupils better methods of producing these crops; the ZACC regional office helps trainees market what they produce. Garden vegetables, which can be used by the people in the region for better nutrition, are also grown.

It is hoped that after about two years the course will become self-financing. Earnings from the increased agricultural output, when combined with profits from articles made and sold by the trainees in their trade training, are expected to pay for the program. Agricultural and trade earnings will also be used to form a fund to buy the tools students need to start out on their own. Plans call for students to earn about $140 over two years of training. After training, it is hoped that students will form cooperatives that will be supported by the Government in proportion to the amount of capital that students are able to save.

Coordination

The National Office of ZACC coordinates its activities with the Ministries of Agriculture and Trade so that tradesmen and farmers can enter the project to give specific training to students. Courses are taught in several local languages, calculus (so that students can keep track of their own production records), agriculture, basic national economics (so that students can understand marketing), work organization (so that they can organize themselves in groups and cooperatives), rural technology (such as bridge construction and well maintenance), hygiene, and civics.

Criteria for deciding what areas will be selected for pilot projects include a density of population great enough to provide at least 30 youths and 20 adults, an atmosphere of willingness and eagerness to participate, and suitable land that will be given to the project either by the Government or by individuals in the area who wish to participate. There must also be a willingness in the community to help build the necessary buildings.

If the project works, it can play a significant role in stopping the rural-urban flow of youth by providing productive and remunerative alternatives to urban employment in the rural areas.

2. DAHOMEY

Ruralization Schemes

Several related projects, four of which are briefly described below, are currently operating in Dahomey as part of the Government's effort to promote rural development.

1. Youth Clubs. As of early 1970, there were 38 youth clubs, each with about 15 members. Plans called for rapid expansion to over 100 clubs by 1971 or 1972. These clubs, which stress the "back to the land" concept, receive financial aid from the Dahomean government and from the FAO. Local chiefs donate land, and the members build their own meeting-house. Most clubs have established cooperatives, and extension services are provided by the Agriculture Department. The clubs are patterned after 4-H Clubs in the United States.

2. Ruralized Schools. In 1967, 10 primary schools in central Dahomey were designated "ruralized schools," where agricultural instruction and maintenance of cash crop farms would be emphasized. The fact that school vacation (July–October) coincides with the main growing season has hampered the program; school farms tended to be neglected when teachers and students were away. The donation of seeds, equipment, and fertilizers by outside sources,

according to one evaluation, meant that the farms showed a "false profit." It was felt that the school farms were not realistic because no ordinary peasant farmer operates with external assistance that eliminated his costs.

3. Radio Rurale. Rural radio clubs have been in existence since February, 1968. As of mid-1970, there were 300 clubs of 30 persons each. Expansion to 600 clubs was projected. The UNDP (FAO) has appointed a technical assistant for the program. There are weekly half-hour broadcasts in 10 vernacular languages. In each club, one interested member is elected to serve as a local *animateur*, a role which involves leading a one-hour discussion following the broadcast and caring for the club's radio. Each club member pays a small sum (less than one cent per week) to a fund that is used to buy batteries.

Broadcasts center on agricultural and health education; contests, with trips to Dahomey's major city, Cotonou, as prizes are staged as incentives to join the clubs. The village *animateurs* attend a two-day training session with agricultural extension personnel and village chiefs. They are also supplied with audio-visual materials and supportive texts. Each *animateur* is aided by a supervisor who makes weekly reports to the program's central office in Cotonou.

4. Animal Draft Power and Integrated Crop and Livestock Farm Project. This Freedom from Hunger/FAO project in northern Dahomey began in 1965. Its main objectives were to establish 10 pilot centers to demonstrate the advantages of using oxen and donkeys in crop rotation and to train selected artisans from the pilot villages in cart making, carpentry and smithing. Freedom from Hunger funded the project, with costs for the first five years estimated at $120,000; FAO provided machinery and equipment.

By 1970, innovations in the use of animals were being spread beyond the original 10 villages, and farmers who adopted the new methods were experiencing increased yields in cotton, Dahomey's principal cash crop. Where cooperatives exist, the Dahomean Government is establishing a system of credit for the loan of equipment. The artisan training program has also been a success; workshops have begun in the pilot villages for the manufacture of four-wheel carts, hand cotton gins, and the repair of machinery.

3. ETHIOPIA

The Bako Project

The Bako Project is a multi-purpose development program of non-formal, and to a limited extent formal, education. The program centers around the town of Bako, Ethiopia, and is administered and largely funded by the Swedish Evangelical Mission. The Swedish Evangelical Mission was established in 1952 at the request of the people of Bako. Apart from its religious mission, the organization has worked out a community development program centered around the training of farmers, craftsmen and housewives.

The Agricultural Training Program

This program was designed to include a training school and an extension program. The Agricultural Training School started in 1965. Its main aim was to train young farmers (an average age of 18). Trainees usually had limited academic backgrounds—about five years of formal schooling—and had little hope of furthering their education. It was hoped that graduates of the school would return to their villages and serve as model farmers. Students were selected on the basis of a written and oral examination and an interview. The curriculum of the school consisted of Amharic (the language of instruction and the official language of Ethiopia), Bible study, science, mathematics, hygiene, horticulture, agronomy, animal breeding, farm management, and elementary economics.

The course at the school lasted for nine to 10 months and had an annual intake of 12 students. Students were required to do at least 22 hours of supervised work per week on their demonstration plots. About two thirds of total instruction time was devoted to practical work; the remainder was devoted to theory.

Students paid no fees. The school was established and partially run on funds supplied by the Swedish Central Youth Federation. Additional support came from profits derived from the school's farming activities. The school's annual per-student cost was estimated at $250. In May, 1971, the Swedish organization terminated its support of the school, and training was suspended. While the school seeks new funding, the project's facilities are being used to train junior extension workers for the government.

Before the young farmer training program was suspended, it had compiled a fairly good record.[1] As of February, 1971, 65 students had graduated from the program. Of these, 15 per cent were farming on their own, 19 per cent were continuing their education, six per cent were serving as agricultural extension workers, five per cent were in jobs unrelated to agriculture, and 30 per cent were in jobs related to agriculture. Twenty-five per cent were jobless.

This fairly high rate of employment resulted because newly trained farmers had neither access to land nor money to finance the purchase of farm equipment. Project planners are now working on acquiring land from the government. If this land is acquired, trainees would be able to work on the program's agricultural settlement after their training ended. In addition to training young farmers, some of the teachers at the school ran demonstration farms at three locations outside the school area. These demonstration programs were designed to introduce new methods among the adult population.

The Trade School

The Bako project includes crafts training. It is expected that the trained craftsmen will work in their communities as carpenters, blacksmiths, iron-plate workers, and auto-mechanics. The two-year course is offered to young people with seven to eight years of formal schooling. Fifteen students are admitted for each year course. The first year of training is devoted to bench work. In the second year, students receive workshop training. It is hoped that profits derived from the sale of goods produced in the workshop will cover the trade school's running costs. (In 1970, the workshop's profits—some $2,750—covered about three-quarters of the cost of running the trade school.)

Annual cost of training per student is estimated at between $200 and $250. The school itself employs some of its trainees. Those not absorbed in either the school or the workshop are expected to establish shops of their own. To this end, the school provides each graduate with a set of tools. The school maintains a close follow-up on its graduates, most of whom were employed after their courses. The trade school is considering establishing an extension department to help train adult craftsmen.

The Home Economics School

The Home Economics School is set up to train young women, from 16 to 20 years old, in skills pertaining to home management. Originally started for girls in the vicinity of Bako, it now has a boarding house and is admitting girls from other parts of the country. The course lasts for 10 months; during that period students take Amharic, mathematics, economics, Bible study, child care, nutrition, hygiene, health, first-aid, home improvement, gardening, sewing and cooking. *Per capita* training cost of the students is estimated at about $300 a year. The school also runs short courses for adults in such subjects as Amharic, machine sewing and hand sewing, as well as an extension program.

The project also operates a school for the blind that draws its students from the nation at large. The school is essentially formal, although an attempt is made to train some students in vocational skills. Products of the school—brushes and clothing—are being sold profitably.

The Bako project attempts to offer an integrated system of non-formal education to a specific community. The program could be transferred to other areas and countries, if the commitment of the Bako project personnel can be matched.

4. NIGERIA

Farm Institutes—Kano State

Historical Background and Objectives

In the early 1960's, the government of the Northern Region of Nigeria decided to establish agricultural instruction programs for primary-school-leavers and to form a corps of progressive farmers. The initial institutions were based on a model from Southern England and did not work because most graduates of the farm institutes did not remain in farming.

A new type of farm institute, drawing from American experience and assisted by USAID, was initiated in 1964. One of these institutes was established in Kano province, then a part of Northern Nigeria. Experience with this type of farm institute was also disappointing. Graduates were usually given a government grant of $56 to set up their farms. But there was no adequate follow-up system, and graduates often migrated to the cities.

The present Kano State Farm Institutes grew out of the original attempts by the Northern Regional government to train school-leavers in farming. Their success can be traced to modifications made in the Northern Regional government program.

Recruitment of Students and Size of Institutes

The program in Kano State drew from the experience of the Northern Regional government program. Instead of taking students just finishing primary school at about age 13, the program limited admission to school-leavers from 17 to 25 years old. It was thought that youngsters just finishing school expected to find employment in the modern urban sector of the economy; older youths, however, had probably already sought urban employment and, having failed, were resigned to making a living in agriculture. These older youths tend to remain in farming after their training is completed. (This pattern was disrupted during the recent Civil War when high-salaried positions in the army attracted many graduates of the Farm Institutes.) The upward age limit of 25 was chosen because, at that age, young men usually marry and are reluctant to abandon family responsibilities for further training. Prospective applicants must be guaranteed about 10 acres of land—by their families or their communities—after graduation. Applicants are also interviewed to determine whether they are truly interested in farming.

Recruitment of students is carried out by a District Selection Committee consisting of a traditional leader (usually the religious leader or local chief), the local school headmaster, who knows the primary-school-leavers, and two prominent farmers. The District Selection Committee usually selects 10 of about 30 to 40 applications. These 10 applications are sent to the Divisional Advisory Board, which makes the final selection. The Division Advisory Board consists of the Principal of the Farm Institute, the Divisional Agricultural Officer, and local councillors who are responsible for agricultural matters. This board also informs District Selection Committees of recruitment needs. Most candidates are expected to have finished primary school; a few who have not finished may also be recruited, depending on special circumstances.

The first Institute in Kano State could only admit 30 students. In 1971, there were five Farm Institutes in operation, two with an intake of 30 students each and three with an intake of 20 students each. Starting in 1972, it was expected that these five institutes would increase their intake to 56 students each. Three new institutes, each with 28 students, were also to be established.

Training Methods and Materials

Prior to 1970, students took a nine-month course that lasted from March through December. The course has since been expanded to 11 months and runs from April through February. Curriculum consists of crop, livestock and poultry husbandry, horticulture, cooperative management and organization, hygiene, surveying, crafts, soils and soil conservation, and farm management. The course is devoted 70 per cent to practical demonstration, including occasional film shows, and 30 per cent to theory. Each student is provided with a small plot and is expected to do some actual farming during the course. No complicated or expensive machinery is used because it is not expected that students could afford to purchase such equipment at the end of their course. During the course students also make field trips to experimental government farms and to successful local farms.

The content of the course and the general manner of its conduct are designed under the jurisdiction of the Agricultural Officer (Education and Training) at the Ministry of Agriculture in Kano. At the end of the course, no certificate is awarded; it is feared that if students have certificates, they will try to look for jobs away from their communities. Student performance is continually evaluated, however, and those who fail to satisfy their instructors are not given government assistance at the end of the course.

Plant, Staff and Equipment

Each Farm Institute consists of three relatively simple buildings located on a 40-acre plot of land. Each institute is run by an agricultural assistant, usually a secondary school graduate with two years of training in a government agricultural college, and an experienced agricultural instructor, usually a primary school graduate with one year of training at a Farmer Training Center.

It was hoped that by 1972, each institute would also have an agricultural superintendent with many years of field experience, as well as three years of post-high school training in agriculture. Other staff plans called for two agricultural assistants, one agriculture instructor, one carpenter, and one blacksmith.

Sponsorship and Funding

The Farm Institutes are run and financed by the Government of Kano State under the jurisdiction of the Ministry of Agriculture. The cost of establishing each new institute is estimated at $61,000. For an institute with 30 students, running costs are estimated at $5,600 per year. Another $1,200 per year is spent at the ministry level for administrative services, bringing total estimated annual recurrent costs to $6,800 per institute. Unit cost is about $226.67. Farm Institutes with 20 students cost about $248 per student. Students are not charged fees and are given one dollar a month for pocket money. Their living costs are all paid by the government.

Wastage, Incentives and Follow-up

At the end of his course, each student is allowed to take home all he has produced—usually about $84 worth of crops. Each successful student is also given a government grant of about $50—$28 to be used as a deposit on a plough, $11 worth of fertilizer and cattle feed, and $11 to hire workers to assist in weeding.

The student also is loaned a pair of work bulls, and a groundnut lifter, a hand tool for harvesting groundnuts. This tool, which enables farmers to harvest groundnuts at six times the manual rate, was designed by the Ministry of Agriculture, Kano, in collaboration with the Industrial Development Center at Zaria. All loans are repayable in three to four years. In addition to grants and loans, the top three students receive prizes at graduation. The school's top student is given a set of hand tools; the next two students receive fertilizer and cattle feed.

As a result of the above incentives, the drop-out rate has been negligible. No students have left voluntarily, but a few have been expelled for bad conduct.

Marketing cooperatives are formed by the newly trained farmers. Students were selected so that there would be enough of them within close range of one another to make the cooperatives work. Because produce is marketed by the cooperative, farmers have less difficulty repaying loans. Part of the money earned from the sale of produce is withheld by the cooperative as loan payment.

The Ministry of Agriculture keeps records on each graduate of the Farm Institutes. Arrangements are made for agricultural extension workers to visit each graduate about four times a year. These visits are supposed to coincide with planting, the beginning of rains, the rotation of crops and the application of fertilizer, and the evaluation of crops prior to the harvest. This last visit enables farmers to estimate income; it is also intended to help prevent farmers from making false claims of a poor harvest in hopes of escaping loan repayments. Extension workers, however, have sometimes failed to make all the scheduled visits.

Agricultural Ministry officials, including the Commissioner of Agriculture, occasionally visit institute graduates on their farms. Even the governor of the state makes occasional visits to the farms. Refresher courses of about two weeks' duration are held for graduates at the Farm Institutes from one to three times a year. State agricultural exhibits and smaller divisional agricultural shows provide another opportunity for contact with these young men.

Impact of the Program

The program has provided relatively little employment for primary-school-leavers. Only 30 students were trained and set up on farms from 1965 to 1966. About 60 students were trained in 1967; about 80 in 1968; and 100 in 1969, 1970, and 1971. Some 120 students were admitted to the 1972 program, and 264 more are expected to be admitted in 1973. As a result of training, however, the productivity of Institute-trained farmers in some areas was greater than those who received no training. In Kano South East, for example, 1968–69 figures show that Institute-trained farmers produced 61.4 per cent more groundnuts per acre than did farmers with no training. Per acre Guinean corn production for program graduates was 71.5 per cent greater than for other farmers. Rice production was 48.7 per cent greater for program graduates; cowpea production was 57.9 per cent greater; and millet production was 43.4 per cent greater. In addition, many prizes at that year's various agricultural shows were won by Farm Institute graduates.

For this program to make a sizeable impact on the Kano State economy, it would be necessary to further expand training opportunities. Thus far, the Institute has been accepting only about one quarter to one third of all who apply. Some constraints on program expansion, however, are necessitated by the fact that Kano State is densely populated and availability of land is limited.

Conclusion

The Kano State Farm Institute program has been successful because the Kano State Government is putting a high priority on expansion of agricultural output; it has thus been relatively easy to obtain government financial support for the program. The Farm Institutes have also received enthusiastic support at the ministry level, and the Governor of Kano State has shown a genuine interest in modernizing agriculture.

The program could easily be transferred to other states in Nigeria or to other African countries. A genuine commitment to finding jobs for school-leavers and to agricultural modernization is, however, needed if the program is to succeed.

5. TANZANIA

YMCA Farm School—Marangu

At the YMCA Farm School at Marangu, Tanzania, students learn about plants, crop cultivation, animal husbandry, soils and conservation, farm management, bookkeeping, arithmetic, surveying, rural crafts and farm mechanics. Students rotate in groups to raise a wide variety of crops and animals. In the second year, students are each provided with one acre on which to cultivate various crops. Second-year students are expected to save money from the sale of their produce (about $28) for the purchase of tools at the time of graduation.

Financial Support

The Marangu project derives much of its financial support from international Christian organizations. The YMCA Farm School was founded in 1966 with a grant of $200,000 from Christian Aid of Britain. An additional $13,200 was donated in 1968 by Oxfam. The Ministry of Agriculture of Stuttgart, Germany gave the school about $22,850 to erect buildings and to meet operating costs over five years.

Distinctive Features

Although the YMCA Farm School owns only 110 acres of arable land (excluding the seven acres where buildings have been erected), it manages to instruct 60 pupils per class, or a total of 120 young men at a time. To date, Marangu has used one tractor in its operations; in future the school will use donkey- and ox-driven machinery. The YMCA Farm School does not pay high salaries to a large expatriate staff, but depends on a staff that is primarily Tanzanian. As of early 1971, the principal of the school was a Masai with an American diploma in soil science. Two of the teachers are local agriculture certificate holders. Only one teacher, an agricultural diplomat from Australia, is an expatriate.

Although the YMCA Farm School was promised government assistance for its graduates, these promises fell through even before the first class of trainees had completed their course. During its first three years, the Marangu school had little success in finding land for its pupils because government support was not available.

The effect of land scarcity on the school's enrollment was devastating. Of 30 students in the original (1966) class, 11 dropped out. In 1967, only 22 students enrolled and 18 of these later dropped out. Of those who did complete the course, 42 per cent were either unemployed or holding jobs outside the agricultural sector. Only those whose fathers were wealthy enough to buy them land were able to start farms of their own.* The gap between objectives and performance was so great that the Marangu school was judged, during these early years, as an almost total failure.

Relation to Ujamaa Villages

Since 1970, however, the Tanzanian Government has committed itself to making the YMCA Farm School effective. Rather than teaching private students, the school now instructs government-selected representatives from *Ujamaa* villages in the 10 regions that are most climatically similar to the Marangu area. Regional Commissioners and District Coordinators, both officials of the central government, choose candidates for the school; selection is based in part on the applicant's willingness to return to his own *Ujamaa* village. It is compulsory for all Marangu graduates to return to their villages, and because pupils know from the start what their futures will be, they can match their expectations to reality. Furthermore, by returning home, students constitute an effective force in upgrading the agricultural techniques of their fellow villagers.

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* These statistics were taken from F. W. Mosha, "Research Notes on the Marangu YMCA Farm School," 1969.

In addition to guaranteeing placement for Marangu trainees, the government has also provided the school with a grant of about $108 per student per year. This eliminates the necessity of students paying their own fees (formerly $71 per year). The government grant covers food, hostel arrangements, supplies and the salary of the school's typist.

As a result of government support and the elimination of fees, the dropout rate at Marangu decreased to about five per cent in 1971. A further sign of the school's improved status is the fact that all six of the agricultural extension workers hired by the LIDEP program (see Part V of this report) are YMCA Farm School graduates.

The future of the school is not entirely certain. Government grants do not cover all costs, and aid donors have specified that the school should become self-sufficient within three years. Whether this target date can be met, or whether other sources of finance can be found, will be the key to the next few years at Marangu. In any case, the YMCA Farm School does provide a useful illustration of how educational and economic policies can be coordinated in a strategy of human resource development.

6. TUNISIA

Centers for Rural Girls

These centers are designed to train illiterate rural girls between the ages of 12 and 18 in those skills needed to provide a better home and family life. The rural centers differ from the regional and local social development centers in that they deal strictly with young girls, giving them five months of courses in much more specific skills than the married women of the Social Development Training Centers receive.

The 60 girls that are admitted to each session are given an intensive literacy course during the five months that they are in residence at a center. At the end of this course, girls take a national literacy test. Thus far, the passing rate on this exam has been about 70 per cent. Students are also taught sewing, cooking, nutrition, hygiene, child care, and gardening.

Three or four years after their training, teachers meet with former students, their husbands and their parents to determine how useful the course has been. Generally, it has been found that girls who have received this training are considered more desirable marriage partners than their untrained peers. No systematic evaluation of the literacy program has been developed. When the homemaking skills of the girls were evaluated, however, all were able to read and fill out questionnaires.

Participants in the program are given free room, board, and some clothing during the five months. The program's annual cost of $20,000 covers two sessions for 120 girls. The most significant aspect of this particular project is its careful follow-up several years after training.

7. UGANDA

Agricultural Settlement Schemes for Youth

In two areas of Uganda, attempts to settle rural youths in agricultural programs have met with considerable success. At Nyakashaka in Ankole, and more recently at Wambabya near Hoima, Stephen Carr has organized programs to provide unemployed youths with the opportunity and training to become productive farmers.

Carr, a missionary with Britain's Church Missionary Society (CMS), had previous experience in the Sudan; he established the Nyakashaka program in 1963. The Uganda Government, with financial support from Inter-Church Aid, had proposed building a new farm school in Ankole. The government was especially concerned about growing unemployment among school-leavers, most of whom were reluctant to engage in agriculture. Carr contended that formal training failed to produce committed farmers. Instead of a school, he urged the creation of a program for placing farmers on empty land.

Carr's suggestion was approved, and after his initial success at Nyakashaka —with roughly 300 settlers—he took charge of a second program for 400 families at Wambabya. Both projects had three basic aims:

1. To provide gainful self-employment for school-leavers. Carr feels that the primary-school-leaver problem is less critical than before, because most school-leavers have come to recognize that they will have to remain at home on their families' farms. Thus the target group for new settlements is expected to be youth in general, rather than school-leavers in particular.
2. To demonstrate the financial attractiveness of modern farming to the settlers and also to other farmers in the area.
3. To revitalize a poor, under-populated area. Development at Wambabya had been hampered by heavy concentrations of wild game and tsetse fly. Conditions at Nyakashaka are described below.

Report on the Nyakashaka Settlement

Local Situation

1. The Nyakashaka site consists of 3,000 acres of steep hilly land at an elevation of about 6,000 feet. Annual rainfall is about 50 inches. The settlement area was largely uncultivated and was unsuitable for subsistence crops. The area was also isolated; population density was low and there had been a long migration to more attractive agricultural areas.
2. The land was not suitable for raising coffee or cotton, the main cash crops in Uganda. But the steep hillsides were suitable for growing tea. Access to the tea factory of Ankole Tea Estates, Ltd. could be easily

attained by constructing a road. Potatoes, strawberries and poultry were proposed as subsidiary income-producing items.

3. Carr was hopeful that the settlement would not disturb the local populace because settlement land could provide a new source of income for surrounding villages. It was also hoped that successful settlement farming would stimulate local innovation, thereby increasing the productivity and wealth of the general area and reversing the pattern of labor migration.*

Initial Planning

Stephen Carr took charge of the project's planning and direction. Carr was, however, responsible to a Board of Governors composed of representatives of the Church of Uganda and the Ankole Kingdom Government.

Carr worked with several basic objectives. He wished to achieve low overhead and operating costs. He also hoped to maximize self-help and independence in an atmosphere of minimal discipline. On-the-job training was to take precedence over classroom instruction. The success of program participants was identified as an important stimulus to others, and demonstration of new techniques to settlers and to other farmers was to receive heavy emphasis.

It was assumed that school-leavers needed financial incentives to accept careers in farming. Early commitment among settlers was considered vital, as was a concentration on crops with potential for early profitability. Tea was considered an ideal crop for the settlement. It was suited to the soil and local climate, could be sold through already-existing local outlets, and required no more than 19 months' preparation, and little equipment, to become profitable.

Finance

The program was expected to become self-sufficient within five years. The project's initial grant amounted to $90,000. Some $71,800 of these funds were to be used for extending loans to settlers; $18,200 was for general overhead and running expenses for five years, including staff salaries and purchases and maintenance of two vehicles. A feeder road to the tea factory was financed by the Uganda Government and built by the settlers. Upkeep of the road became the responsibility of the Ankole Kingdom Government.

Main Features and Operational History

Clientele consists of secondary school dropouts. Students are recruited mainly through local contacts.

Characteristics. Settlers are a fairly homogeneous group of young men in their early 20s; most are unmarried. They tend to be the first sons in large families where the father was a poor farmer with little education. A number of settlers owned land at home, but were willing to give it up, if they succeeded in the program.

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* This report is based on a paper by Clifford Gilpin of Teachers College, Columbia University, and the International Council for Educational Development.

Aspirations. Most students had had unrealistic job and income aspirations that they had failed to achieve. Half had come to Nyakashaka without any employment background, and others had had jobs that were mostly unskilled. Previous wages rarely exceeded $10 a month. After working in the program, most settlers had developed generally favorable attitudes toward their financial prospects as farmers.

Enrollment. By 1968, there were 120 settlers. Applicants were initially recruited for a five-month trial period in which they served as laborers. Pay during the trial period was 25 cents per day. These applicant-workers built a 16-mile road that connected the settlement with the area's main road. This project was completed in several weeks with no government assistance. After the initial testing period, settlers were selected on the basis of their work records, character assessments, and their potential to become responsible farmers.

Training

The program lasts for three years. Each settler is given six acres—three for tea, one for strawberries, and two for expansion. Settlers also receive a loan of $5.70 a month for purchase of food and the hiring of labor, as well as a loan of $57 to build a house. A long-term loan of $657 to buy 10,000 tea stumps is also given each settler. Repayment is made over five years. (Settlers at Nyakashaka are now repaying loans directly to Carr, who is loaning the money out again to settlers at Wambabya.)

Discipline

Discipline is minimal and consists of required attendance at early morning rollcall for discussion of work. Settlers' visits home are also restricted so that increasing emphasis can be placed on individual commitment to a new social group. The settlement manager has the right to evict settlers. By 1966, four of the seven settlers who had left the program had been evicted for unsatisfactory work.

Marketing

Average yield for school-leavers in the program is about $30 per month. Some farmers regularly receive as much as $87 per month. A Nyakashaka cooperative was established to collect and deliver tea to the nearby factory. The cooperative has the right to reject tea that arrives late for delivery to the factory.

Among subsidiary crops, strawberries can yield about $43 a month; potatoes can yield $14 a month.

Staff

Carr and an expatriate assistant directed the project for several years, but staff at Nyakashaka now consists of African extension personnel in the area.

Cost-Benefit Analysis

Distribution of Loans and Grants 1963–1967

	Loans	Grants
Capital Expenses	$46,200	$15,400
Operational Expenses	21,000	30,520
	$67,200	$45,920

Although the capital invested in the program was adequate to cover up to 400 farmers, as of 1967 only 120 farmers had been settled. It was estimated that each of these farmers had a potential to earn a net income of $840 a year. From its inception, the Nyakashaka settlement has been open both to school-leavers and to potential farmers who have never attended school. Since 1968, the Nyakashaka settlement has been mostly a tea-growing settlement and the total number of farmers now exceeds 1,000. Carr estimates that more than 7,000 people have moved into the area since 1963. A tea officer from the Uganda Ministry of Agriculture now supervises tea marketing, and the Nyakashaka cooperative has received loans from the Uganda Credit & Savings Bank.

*Evaluation**

The social and economic impact of the program have been considerable. The new road and improved communication have encouraged new settlements in the area. The program has also stimulated new services and has helped introduce modern farming techniques. Schools, churches, a community center and a sports field have been built in the valley below the settlement.

The program was organized on a low-cost basis and seems to offer a high return on investment.

The settlement's general principles can be applied anywhere, bearing in mind that a key factor in success is the choice of management. An area of greater fertility would allow settlers to produce their own subsistence crops as well as crops for sale, but in many countries uncultivated land of this sort is simply not available.

The Role of Leadership

Carr is developing a new agricultural settlement in Karamoja, a semi-arid district in northeast Uganda. His reputation has stimulated offers of important jobs in international agencies, and he is considering a supervisory position with the Uganda Tea Growers Authority. The latter post might enable him to have a greater multiplier effect in developing similar programs elsewhere in the country.

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* An economic assessment of the program cannot be made for a number of years.

Carr's vital role in the project poses a serious dilemma. If the key to a settlement's success is the intense commitment of an extremely able person, it may not be possible to replicate such projects. The challenge to governments and aid agencies is to create incentives to bring talented persons into closer contact with rural areas.

Potential Problems

Potential problems include the possibility of a drop in world tea prices, the possibility that settlers will fail to repay loans, and the chance that tensions will develop between the settlement manager and the less successful farmers. It is also an open question whether the children of the current settlers will be attracted to farming or will be alienated from it.

Key Factors in Success

As has been noted, the personality of the program manager is a vital element in determining whether a project will succeed. It is also helpful if the program's clientele is somewhat homogeneous and if a collective spirit is developed among settlers and the management.

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8. UPPER VOLTA

Rural Education Centers

Since 1961, the Government of Upper Volta has supported a system of Rural Education Centers (CERs). These centers offer three years of instruction to children who have not attended primary school. The instruction emphasizes vocational and agricultural training and has two main goals: to offer basic education to young citizens and to provide practical training.

As of 1967, there were 542 CERs in Upper Volta. Thirty of these were for girls. Plans called for the creation of 340 more centers by 1971. Centers are open six hours a day, five days a week, from May 1 until February 28. This schedule provides 1,400 hours of school per year, of which half is devoted to general instruction.

A UNESCO report, made at the government's request in 1967, noted that standards of instruction varied widely from school to school. Little attention was given to agricultural training, except for the fact that an agricultural course was given in the third year. This course focused on new techniques of plowing, crop rotation, and disease control; chicken raising was the main topic of what little animal husbandry there was.

Official statistics suggest that between 70 and 80 per cent of CER graduates remained at home after school. The UNESCO study, however, indicated that more than a third left home, most often moving to cities and towns in search of employment. It was found that many parents regarded the CERs as an inferior kind of primary school. A frequent complaint was that CER-leavers were the lowest in the entire Upper Volta educational system, even though they had been carefully recruited and selected.

Although expansion of the CERs has continued, a more systematic approach is required if the system is to effectively train manpower for the Voltaic economy. The CERs have not yet established an identity distinct from that of the country's formal schooling system.

9. ZAMBIA

Kalalushi Farm College—Kitwe

Objectives

The Kalalushi Farm College, formerly part of the Mindolo Ecumenical Foundation of Kitwe, Zambia, trains young men to become farmers or ranchers either on state ranches or on private farms or ranches. It aims to give them better farm and ranch skills as well as the ability to manage finances. Successful trainees are assisted in starting their own farms within the Ipafu Resettlement area in Zambia's Copperbelt.

Selection of Trainees

Applications are accepted from boys who have completed two years of secondary school. Some older applicants, without this formal educational background, are accepted if there is reason to believe that they can understand the theoretical courses and will make dedicated farmers. The Zambian Civil Service administers an intelligence test to all applicants; those who pass are brought to the farm for a two-month trial. During this period, candidates are given the most difficult and tedious jobs on the farm, e.g. stumping, clearing and digging. Those who are not physically able or who are not sufficiently determined are eliminated from the program. At the end of the trial period, each candidate is evaluated by the instructors and interviewed by the director. Those who are favorably evaluated work in the various fields until courses begin in September. (The trial period begins in March.)

Instruction

Training lasts two years; successful trainees spend a third year at the Ipafu Resettlement area. Each class contains an average of 24 students. During the first year, these students are divided into six groups of four trainees each. For one month, three groups are assigned to the first-year vegetable garden, one group works at marketing and compost making, and the remaining two groups raise pigs and poultry. Groups are continually rotated so that each participates in all activities at several different seasons of the year. In addition to these practical activities, trainees attend two hours of lectures per day in agricultural theory, farm management, and accounting. Training is given on each week day and for a half day on Saturday. Each trainee receives an allowance of 12 cents an hour for all regular farmwork and 22 cents an hour for extra duties. From this allowance each student must pay for his food (board is free), and must save a yearly total of $73 if he is single or $110 if he is married. If a student does not save these monies, he is dismissed from the College; it is felt that a person who is unable to carry the responsibility of saving money will not make a successful farmer. At the end of the first year, students are given an examination; one-third of the exam is theoretical, and the rest is practical. Students must get 60 per cent of the answers correct to pass the test. Students who pass may continue into the second year of training.

During the second year, students receive no allowance for their work. Until they can harvest and market their crops, they live on money saved during the first year. To grow these crops, each student receives two $\frac{1}{10}$ acre plots as well as a loan for fertilizer, seeds and a poultry house. The amount of land a student farms may increase to as much as six $\frac{1}{10}$ acre plots by the end of his second year, depending on his farming and his management ability. Each month the student gets a check for the amount of produce he sells. This figure is calculated at the average price for grade "A" produce. The money is placed in the student's bank account, but cannot be withdrawn without the countersignature of a school staff member. Accounts and records must be kept by the student, and it is hoped that by the end of the year the student will have saved enough to begin farming without overburdening loans.

Families of second-year students may live at the College, and wives of second-year students receive training in cookery, needlework, knitting, child care, and nutrition. Wives are also expected to do some work in the fields with their husbands and to do other farm chores.

Placement

At the end of the two-year course, those who wish to return to their own land may do so. Those who do not return to their own land are placed on the Ipafu settlement for one year. If, after this year, students are judged to be good farmers, the government gives them title to five acres of land. Of the 24 students who began their training at Kalalushi in 1967, some 18 successfully completed the two-year course. Of these, about 12 settled in Ipafu; the other six returned to their own land. At Ipafu, which is owned by the government but managed by the Kalalushi staff, the student is required to farm the land himself. He must build a house, and is provided with an 11-year government loan for this purpose. Students pay about 14 cents per hour per syphon for the irrigation water they use. No Kalalushi student has been evicted from Ipafu or denied the five-acre land title after the trial period.

Staff and Equipment

All senior staff members, except the registrar who is Zambian, are expatriates with degrees or diplomas in the fields they teach. Salaries are paid by various national and international religious groups. Staff consists of the director, an agriculturist with wide experience in Africa; two horticulturists; one pig-and-poultry specialist; two ranchers; one VSO volunteer in the office of accounts; the Zambian registrar; and a Danish marketing aide. The junior staff, all of whom are Zambians, consists of a poultry manager, a marketing manager, a storekeeper, a building foreman, a rancher, and a gardener. In addition, 100 farm laborers are hired from profits made on farm produce.

The College itself consists of 9,000 acres, only part of which is used for course work. The Ipafu area includes about 1,000 acres, room for at least 70 farms. Equipment consists of a large tractor and a small garden tractor. Students are taught to use hoes and axes, tools they bring with them that will be readily available when they begin their own farms.

Finance and Costs

The World Council of Churches and other overseas church groups provide about 50 per cent of the College's funds. Two of the largest contributors in 1970 were the British organization, Christian Aid, with more than $51,000, and *Brot für die Welt* of West Germany, with about $56,000. The Government of Zambia covers two-thirds of the remaining 50 per cent of the budget; the remaining funds come from the College's own resources (e.g. from profits on sales of produce). This pattern of external support has prevailed since the College was founded, originally under the direction of the Mindolo Ecumenical Foundation. The College now has its own board of governors and is administered separately from Mindolo.

Direct training costs for the full two-year course have been estimated at $1,400 per student. If indirect costs (related to the College's extension and rural development work) are taken into account, the cost rises to $2,800 per student. An evaluation team sent by the Government of Zambia found that total costs per student at the College were about half those of similar institutions in the country.

General Comments and Evaluation

The Kalalushi Farm College's link with the Ipafu Resettlement area demonstrates a desirable connection between training and productive activity.

The Zambian Government funds about 33 per cent of the costs of the College and provides free farmland and long-term housing loans to successful trainees. At the same time, the Government allows the College itself to manage the Ipafu program. Government assistance is not accompanied by government control. Such control could easily stifle training projects before they reach maturity.

Per capita training costs could be reduced, and the 9,000 acres and six-member training staff could be better utilized, if yearly student output could rise considerably above the present 18 trainees. Hopefully, the planned construction of more dormitory space will help make such expansion feasible.

PART

IV

Training Programs for Adult Populations in Rural Areas

MAJOR CASE STUDY NO. 4

TANZANIA:

WORK-ORIENTED ADULT LITERACY PROJECT—MWANZA

Historical Background

For several decades, many developing countries have had adult literacy programs. In most cases, however, these programs have had a minimal impact on the productivity of adults. In September, 1965, UNESCO organized an international conference of education ministers to explore the eradication of illiteracy in ways that would also increase productivity of adults.

Out of this conference emerged UNESCO's Experimental Functional Literacy Program. In the hope of encouraging national programs, UNESCO indicated a willingness to assist developing countries in starting work-oriented adult literacy pilot projects. Since the conference, work-oriented adult literacy pilot projects have been launched in Algeria, Ecuador, Guinea, India, Iran, Madagascar, Mali, Sudan, Syria, Tanzania, and Venezuela.

Tanzania applied for U.N. assistance in adult literacy in 1966. A plan of operation was set up with the United Nations Development Program Special Fund in September, 1967, and UNESCO was designated as the executing agency for the project. The program began in January, 1968, was expected to last five years and was to cover four administrative regions adjacent to Lake Victoria. This agricultural area was chosen because of the high priority it had been assigned in the First National Development Plan of Tanzania (1964–1969). The area is also a major producer of cotton, Tanzania's leading cash crop, as well as of coffee, tea and rice. The infrastructure needed for the pilot project was available in this region and the area's high incidence of adult illiteracy was obstructing development.

Objectives

As stated in the U.N. plan of operation, "The main purposes of the five-year project are to assist the Government of Tanzania in organizing and implementing a work-oriented adult literacy pilot project closely linked with vocational training, particularly in agriculture, and to train the national counterparts, supervisors and trainers of literacy teachers in the new approach and techniques of functional literacy.

The specific objectives of the project are:

(a) To teach illiterate men and women basic reading, writing, and to solve simple problems of arithmetic, utilizing as basic vocabularies the words used in agricultural and industrial practices;

(b) To help them to apply the new knowledge and skills to solve their basic economic, social and cultural problems;

(c) To prepare them for a more efficient participation in the development of their village, region and country;

(d) To integrate the adult literacy and adult education program with the general agricultural and industrial development of the country; and

(e) To provide the necessary and adequate reading materials to impart the knowledge of community and personal hygiene, nutrition, childcare, and home economics, which will help to improve family and community life, provide opportunity for a continuing education and avoid a relapse into illiteracy."

The language in which literacy was to be acquired was Swahili—the national language of Tanzania. It was hoped that the project would reach people between 15 and 45 years of age and that after two years of participation these adults would have reading, writing, and arithmetic ability equivalent to a good fourth grade education. Within four to five years, it was hoped that there would be a reduction in the overall illiteracy rate in the pilot area from about 85 to 40 per cent. Related goals included higher incomes and better sanitary and nutrition standards among new literates, greater participation in social and community development, and application of better agricultural methods such as the use of fertilizer and insecticides.

Implementation

Although the project began in January, 1968, the first year and a half was spent on preparation and experimentation. Background information had to be gathered on the social, economic and demographic conditions of the region in order to determine how many classes had to be launched over the five years. It was estimated that to reduce illiteracy from 85 to 40 per cent, at least 75,000 new literates would have to be created. Moreover, new functional literacy reading materials had to be written.

The first adult literacy classes were started in August, 1968, using a primer that was not geared toward functional literacy. It was felt, however, that starting classes before all materials were ready would allow for gaining valuable experience in organization and in the preparation of instructional aids. Some 490 students were enrolled in 27 classes by the end of September, 1968.

The program consists of 18 months of instruction. The first six months are devoted to classes based on a first primer. These classes meet three days a week for two hours per day in the late afternoon.

The next six months are devoted to practical demonstrations of the production techniques that were learned during the first six months. The number of demonstrations varies from area to area depending on what crops are grown or what livestock is reared. The frequency of the demonstrations is timed to coincide with tilling the soil, application of fertilizer, planting, weeding, or harvesting.

The last six months of instruction constitute the final session of the literacy training and a more advanced primer is used. Classes meet three times a week for two-hour sessions. At the end of this period, students are given a literacy test and those who pass are issued a certificate. Literacy attained at the end of the course tends to be limited and is tied to one area of production. Some attempt has been made to broaden the content of training by introducing civics, health, and hygiene in the second session. Because the test given at the conclusion of the course tests only literacy, certificates give no indication of the functional skills that the newly literate person may have acquired.

Initial Difficulties

The initial experimental group that started classes in August, 1968, did not go all the way through the learning and testing cycle described above. The class was discontinued in 1969 and some of its members were reassigned to the class of May, 1969, the official beginning of the program. Some 198 classes of about 25 students each (some 4,950 in all) started the course. By the time the second session started in May, 1970, the total had dwindled to 115 classes. This group of students was not tested on schedule in 1970; some students had fallen behind and had not completed the second primer.

The group was advised to repeat the second session with the students who had begun in May, 1970, and who were scheduled to start their second session in May, 1971. The 1970 group consisted of 677 classes with about 16,925 students. By May, 1971, as the 1970 group went into the second session, classes had fallen to 457 with about 11,425 students.

The year 1971 was critical in the life of the functional literacy project. It marked the beginning of the project's expansionary phase, which was supposed to lay the groundwork for covering the four Lake Victoria regions by 1972 and prepare for a nationwide campaign in 1973. In May of 1971, 4,432 classes were launched with an estimated enrollment of 127,000 students. It was hoped that by 1972, the four lake regions would be covered and new enrollment would reach 6,000 classes with about 180,000 students.

Organizational Structure in 1971

The work-oriented literacy project has been under the jurisdiction of the Ministry of National Education since January, 1970. Previously it had been under the Ministry of Regional Administration and Rural Development. The National Director of the project is the Assistant Director of National Education (Directorate of Adult Education). The National Coordination Committee, a subcommittee of the National Advisory Council for Adult Education, advises on the project's general functioning and welfare. This committee includes key representatives of the ministries and other groups concerned with adult education, such as TANU (the ruling party), international organizations and the Institute of Adult Education.

The National Coordination Committee is composed of representatives of the following organizations: the Ministry of Regional Administration and Rural Development, the Ministry of Agriculture, Food and Cooperatives, the Ministry of Health and Social Welfare and National Education, the United Nations Development Program (UNDP), the International Labor Organization (ILO), the World Health Organization (WHO), and UNESCO.

At the operational level in Mwanza, the project's headquarters, the UNESCO team of experts is headed by a Chief Technical Adviser who works closely with the National Deputy Director, who heads a team of Tanzanian specialists. The project team is divided into the following departments:

1. The field operation unit oversees the project's field activities, distributes reading and teaching materials, recruits teachers and students and provides field progress reports.
2. The training unit prepares syllabuses and curricula for the training of instructors, literacy teachers and supervisors.
3. The book production unit plans and prepares teaching materials, finds authors to prepare primers, teachers' guides and follow-up materials, conducts writers' workshops, edits writers' material and trains editors for rural newspapers.
4. The visual aids unit produces such materials as flash cards, posters, etc. It also draws maps and designs certificates.
5. The printing unit produces all printed materials.
6. The agricultural unit is responsible for the agricultural content of primers and for training instructors for the project's field demonstration component.
7. The home economics unit prepares teaching materials, finds writers for home economics primers, conducts actual training in home economics and organizes and supervises field operations.
8. The rural library service, in collaboration with the Tanzania Library Service, plans, establishes and supervises rural libraries.
9. The rural construction unit coordinates rural construction programs; it locates writers to produce primers on construction and supervises field operations.
10. The evaluation unit oversees the collection of data and prepares background reports.

By July, 1971, eight United Nations experts, nine Tanzanian specialists, and 22 other supporting workers ran the project from its headquarters in Mwanza.

The project's national organization is somewhat involved. At the regional level—the largest unit of decentralized administration in Tanzania—a Regional Education Office coordinates project activities with the advice of the Regional Adult Education Committee, the regional counterpart of the National Advisory Council for Adult Education. In each district, the District Education Officer for Adult Education runs the project with the help of the district Adult Education Committee. At the ward level—Tanzania's smallest governmental administrative unit—a primary school teacher coordinates the project with advice from the Ward Adult Education Committee.

Within each ward, a primary school teacher supervises six to nine literacy classes. At the village level, committees composed of village and party leaders help recruit volunteer teachers as well as students. Within each class, student committees raise problems of class members with teachers.

Recruitment and Training of Literacy Teachers

In 1971, there were two main sources of literacy teachers—primary school teachers and volunteers who were usually literate farmers, unemployed primary-school-leavers or, in a few cases, primary school drop-outs.

The participation of primary school teachers in the program was compulsory. Those teachers involved with the literacy classes were exempted from two hours per week to regular teaching in primary schools, but were expected to spend six hours per week without pay teaching adult literacy classes. In this way, 2,000 primary school teachers were brought into the literacy program. The Ministry of Education coordinates this system of teacher recruitment. Previously, when the program was under the jurisdiction of the Ministry of Regional Administration and Development, there had been difficulties in getting primary school teachers to participate.

Because the number of primary school teachers is insufficient to cover all the required literacy classes, volunteers are needed. These volunteers are recommended by village leaders. It is expected that those who are chosen will return to teach in their villages after they have received training. The project staff makes the final selection of volunteers. Those who are chosen as literacy teachers are paid about $4.20 a month in the first year of teaching and $5.60 a month in the second year. In 1971, there were 2,200 volunteer teachers. A few of these taught two classes.

Before 1971, the project staff trained all literacy teachers. But when the total number of teachers rose to 4,200, it became necessary to devise a new teacher-training system. The solution that was proposed was to train instructors who would then train other teachers. This team of teacher-trainers did its job without additional pay.

Divisional Training Teams

A team consisting of two primary school teachers, a Rural Development Assistant and an Agricultural Field Assistant trains all of the program's literacy teachers. In 1971, the project staff trained 105 teachers at its headquarters. Usually, members of each training team have the equivalent of high school education and some experience. The Agricultural Field Assistant teaches the literacy teachers how to conduct field demonstrations.

Teacher-trainers are instructed by project staff for two weeks. Head teachers, the leaders of each teacher-training team, are chosen during this time. The training team then offers instruction to volunteers for three weeks; primary school teachers receive one week of instruction. After the first session of teaching (i.e. a six-month period), the training team gives volunteers a refresher course.

Literacy teachers are trained in pre-class preparation, working with adults, use of audio-visual materials, integration of literacy with agriculture, the conduct of field demonstrations, teaching reading, writing, and arithmetic, class management, keeping records, testing, and evaluation. To provide some follow-up to training, the project has established a monthly newsletter with information on class supervision, field demonstration, and the development of uniform standards of teaching.

Teaching Materials and Methods

Primers used in the project were designed to teach literacy around specific vocational skills. Primer I—of two that were developed—was used in the first six months and primer II was used in the last six months of the course. Teachers' guides were also written on each subject, giving instructions on how to proceed from lesson to lesson, providing background information on the vocational skill chosen for the primer, and advice on pedagogy. Guides were also prepared for teachers on how to conduct field demonstrations.

In addition to the primers, supplementary materials were prepared to help students understand the material in the primers, to provide better student appreciation of field demonstrations, and to increase the amount of literacy material given to students. Primers and demonstration guides were produced on the following subjects: cotton growing, banana raising, fishing, rice growing, arithmetic, homecraft and cattle raising. Supplementary materials produced include drill cards, posters related to the texts of the primers, leaflets to be distributed during field demonstrations, rural newspapers used in the second year of literacy classes and picture stories on civics, cooperatives, budgeting, health, and rural construction. These literacy materials were usually written by groups of people working in a writers workshop established by the project.

In the actual teaching sessions, literacy teachers introduce the students to new words gradually. They start with a few sentences and build up to many sentences as the course advances. With the help of drill cards, students are taught to construct new words from syllables they already know. They also copy new words and short sentences from their primers to give them practice in writing. Arithmetic exercises based on the problems discussed in the primers are given to the students after each reading and writing session. By the end of the sessions, students are expected to have a vocabulary of about 500 words.

Building Plant and Equipment

The project's headquarters in Mwanza is located in a modest one-story building that was formerly used for government offices. The accent of the office is on simplicity and economy. The headquarters has no boarding facilities; local educational institutions, such as the agricultural training institute, are used for lodging facilities. Literacy classes are usually held in primary school classrooms. Where there are no classrooms, classes are conducted in the open, in abandoned garages, or in makeshift classrooms built by students. Thus, the need for constructing new buildings is minimized.

Financing the Project

The project is partly financed by the UNDP and by the Government of Tanzania. UNDP was expected to provide $1,321,450 over the six years from 1967 to 1972. Of this, $741,250 would be used for the salaries of U.N experts, $104,000 for fellowships and training of Tanzanian staff, $399,000 for equipment, $56,200 for miscellaneous local operating expenses, and $21,000 for evaluation and project communication expenses. At the end of 1972, UNDP and the UNESCO staff are scheduled to end their participation in the project. The Tanzanian Government is supposed to take over all financing and operations after 1972.

During the life of the pilot project, Tanzania's Government is expected to contribute $6,234,160. Of this, $107,400 will be applied to local operating costs. The remaining $6,125,750 is to cover the salaries of Tanzanians working at the project office and in the field and to cover time spent on the project by such Tanzanian Government personnel as agricultural extension workers and primary school teachers. Primary school teachers receive only their usual pay for working on the project but are reimbursed for any costs they incur. Funds provided by the Government are also used to pay for land and buildings, fellowships, local training, staff, miscellaneous expenditures and local transportation. Participating adults were charged no fees and were supplied with free books and pencils.

Cost-Benefit Analysis

The total cost of the project, including UNDP and Tanzanian contributions, is estimated to be $7.6 million. This figure is based on actual expenditures up to 1970 and estimated expenditures for 1971 and 1972; it is thus closer to the project's real total cost than the $6.3 million that was estimated in the original plan of operation. If the goal of creating 75,000 new literates at the end of the project is met, it will have cost about $100 to train each new literate. This relatively high initial cost, it should be noted, occurred during the program's experimental stage.

When the program is extended to the national level and UNESCO personnel—higher paid than Tanzanian personnel—withdraws, there will be some cost savings. It is likely that the unit cost of producing a new literate will eventually be less than $50. Additional capital costs for the national program are estimated slightly in excess of $7.3 million.

Evaluation and Conclusions

Because the pilot project was still in operation when this study was conducted and because the effects of the program can only be judged after several years of operation, it is difficult to evaluate the project. In addition, there were not enough records to indicate to what extent participants in the literacy classes were comprehending the content of those classes.

The only available evaluation of actual performance consists of a sample survey of the 1969 group conducted at the end of their course in 1970. This survey showed that 52 per cent of all those tested for reading ability demonstrated little or no learning. Sixty-three per cent showed little or no ability in the writing test. Performance in arithmetic was better, with only 21 per cent showing little or no learning. Of those tested, 48 per cent demonstrated some reading ability; 37 per cent some writing ability; and 79 per cent some arithmetic ability. Comparing the performance of the adults in the program to that of primary school children in their third, fourth, and fifth years shows the average reading score of the adults to be about 60 per cent lower than the average third grader's score. The average score of the adults was about one-third of the third grader's score in writing, and about 50 per cent of the average third grader's score in arithmetic. The third graders' scores were substantially less than those of the fourth and fifth graders.

The sample survey showed that only about 40 per cent of the adults originally enrolled reached the end of the course. From this, and from prior test results, it appears that only 20 per cent of the initial group had some reading ability and only 15 per cent had some writing ability. Thirty-three per cent had some arithmetic ability. Since the proportion of those having little or no knowledge of reading and writing is high, it is likely that the average score of those having some ability in these areas is comparable to third- or fourth-grade performance.

It may be unfair to extrapolate these findings to the 1970, 1971 and 1972 groups because the teachers of the 1969 group were mostly volunteers—mainly primary-school-leavers and dropouts. This would tend to produce poorer performance, but it must be noted that project staffers were directly responsible for training these volunteers. There were still a large number of volunteers in the 1971 group (2,200); these were trained, however, by training teams and not by the project staff. The new volunteers probably receive less effective training than their predecessors. The participation of primary school teachers in the program should help to improve the performance of the adults.

Projected Results

At least 75,000 and probably more adults will have completed the literacy course by 1972. If the comprehension of these adults is not significantly better than that of the 1969 group, only about 50,000 new literates will have been created, presuming the drop-out rate of 1969 is projected into 1971 and 1972. The goal of creating 75,000 new literates by the end of the project thus depends on efforts to reduce the drop-out rate and to insure greater comprehension.

The project's evaluation unit has devised an experimental design whereby the impact of the functional literacy classes on production methods will be tested on the 1970 and 1971 groups. The level of political and socio-economic knowledge, production methods and living practices of the 1971 group were measured at the beginning of their literacy classes; the 1970 group was measured at the beginning of their second session. Control groups were set up.

At the end of the literacy sessions (in November, 1972 for the 1971 group and November, 1971 for the 1970 group), measurements will again be made using the same indicators for both experimental and control groups. Even these results may not be conclusive, for it may take some time after the project ends before its impact makes itself felt.

Long-Term Impact and Follow-up

The project anticipated the problem of literacy retention after participation and has plans to prevent loss of literacy by building rural libraries containing follow-up materials for new literates. By June of 1971, however, only 100 volumes were available in a few pilot libraries. A rural newspaper is already in production for new literates, but its main use is in second-year classes. Discussion groups are also planned, and a proposed radio station for the Lake Victoria region will carry programming directed at new literates.

The work-oriented (functional) literacy pilot project is of great significance. The fact that the project reached almost 130,000 adults in 1971 stands as a major achievement. Furthermore, the possibility that between 50,000 and 75,000 new literates might be created at a unit cost of about $50 to $80 shows that project costs can be kept within reason. If the new literates apply their new knowledge in production, the impact on the income of farmers and the nation would be considerable.

If the national program operates as successfully as the pilot project, or even comes near its performance, the impact on the national economy will be revolutionary. It is likely that this will occur because in Tanzania there is a strong Government commitment to adult literacy and to adult education. The high enrollment figures have been made possible by the hard work and ingenuity of the project staff and by the active role played by local political leaders in arousing interest in the classes. The enthusiasm of the people themselves for development, also partly stimulated by the Tanzanian Government, has increased their willingness to participate. The intensive utilization of already existing facilities and the mobilization of the free services of primary school teachers—factors helping to keep down costs—are the work of a Government seriously dedicated to development and to the welfare of the people.

Significance of Tanzania's Efforts

The fact that 11 other countries are already running functional literacy programs shows that they are transferable. Considerable resources are needed, however, if these programs are to succeed at the national level.

In order to reduce the national adult illiteracy rate to the same level as in the pilot project, it would be necessary to spend a minimum of about $40-million in Tanzania. It would probably cost over $200 million to wipe out illiteracy altogether. The burden on nations launching such efforts is great, and external assistance is needed.

Aid donors have two choices: (1) They can increase their aid for capital projects generally, thereby reducing the recipient government's need to accumulate surpluses from tax revenues. These revenues will then be free for recurrent costs. (2) They can work out new methods, acceptable to both parties, for assisting in the financing of necessary recurrent expenditures.

The Mwanza project has made a promising start. The commitment of the Tanzanian Government to functional literacy is exceptionally strong. But expansion of the pilot project to cover the nation may be difficult, judging by the experiences of other countries that have made similar attempts.

BRIEF CASE STUDIES

1. CAMEROON

Zones d'Actions Prioritaires Intégrées (ZAPI)

Objectives

The pilot project in the South-Central region of Cameroon, establishing Zones of Priority Action (ZAPI), aims to increase agricultural output and promote community development by providing extension training and by organizing marketing cooperatives. It is felt that the key to greater productivity lies with young people who are more receptive to change and special training is provided for them. Furthermore, the women of the area are trained so that they too can contribute to the process of development.

Structure

Three zones are contained within the South-Central region: Menguené with 3,000 planters, 8,450 hectares of cocoa plants* and 15,000 inhabitants; Zoétélé with 3,000 planters, 7,000 hectares of cocoa and 19,000 inhabitants; and the most recently organized, Ngaulemakong, with 10,000 inhabitants, 1,200 planters and 3,000 hectares of cocoa. These areas were chosen because their population and cocoa plant densities were about average for the country.

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* A hectare is the metric unit equivalent to 2,471 acres.

Each zone has its own administrative council consisting of three representatives from each of the five branches into which the zone is divided. Branch representatives come from all the various clubs or associations that the peasants themselves have formed. Each branch contains several villages and many peasant associations.

For each zone an EPL (Enterprise for Local Products) is formed. The EPL acts as a marketing and purchasing monopoly for the products (mainly cocoa) of the zone. Each branch is directed by a manager who is assisted by three extension community development workers, each of whom is charged with organizing production and teaching better methods to about 250 planters. At the head of each EPL is a director, often a graduate of the *Institut Pan-Africain du Développement* (see case study in Part V). The director is assisted by an accountant, a technical assistance program officer, and an extension worker.

The regional mission oversees all financial assistance coming to the three ZAPIs from the Cameroonian Government. It also helps to standardize training and makes feasibility studies. Government funds come through CINAM, the *Compagnie d'Etudes Industrielles et d'Aménagement du Territoire*, a quasi-state organization that also offers training to Cameroonians who hold key positions in the Regional Mission of South-Central Cameroon and in the EPLs.

Training

Agricultural extension training concentrates on the use of fertilizers and pesticides, the revitalization of neglected cocoa fields, and the preparation of new fields. In addition to agricultural training, other counseling is given to branch managers and to EPL staff by instructors with university degrees in law and economics. Because the ZAPIs are scheduled to be staffed entirely by local people within five years of their founding date (1967), young locals are brought into Yaounde for one- to two-week courses in accounting, mechanics, and other basic skills. Furthermore, all teachers, extension workers, and trainers are preparing local counterparts (usually those who have at least two years of college training) to replace them.

Women's training is provided by female instructors who have received their Certificates of Professional Aptitude in Household Arts and who have taken courses at the Ministry of Health. The three basic goals of the training are to help integrate the women into the project, to support local women's groups and to support participation by women in other local organizations, and to improve women's domestic skills and literacy. The training has improved the homemaking practices of the women and has stimulated projects organized by the women. These projects include cultivation of improved groundnuts (the number of fields cultivated rose from three in 1967 to 50 in 1969); creation of parapharmaceutical outposts; organization of sewing workshops; and creation of work teams.

Youth training programs are newer and less developed than women's training. Nevertheless, young people have been trained in the same cocoa raising techniques that are being taught to the older planters. Some youth groups have started their own small plantations and are producing cocoa that meets the standards of the EPL.

Other Activities

The zones have obtained credit from the Cameroon Bank for Development and are able to make loans to individual planters. These loans are received in the form of copper chloride to fight plant diseases, pulverizing machines to help with farm work, or monies for home improvements. Home-improvement loans must be matched by the borrower.

In addition to providing a market for local planters, the EPLs also construct and improve trails and roads in the area as a contribution to general community development. EPLs have also helped finance and build parapharmaceutical depots in several villages.

General Comments and Evaluation

The significance of the ZAPI project lies in its goal of increasing production and marketing of agricultural products, thereby partially correcting the imbalance between rural and urban income and productivity. If the program proves successful and can be spread to other areas of rural Cameroon, the problems of poverty in the rural sector and of the rural to urban migration of youth can be partly counteracted.

The program is showing signs of success. It was originally projected that in 1969–70 some 80,000 cocoa trees would be regenerated in both the Menguené and Zoétélé Zones. It turned out that as many as 174,000 trees were regenerated at Menguené and 162,000 at Zoétélé. Average yearly net revenue of the planters in the three zones (at fixed prices) increased by about $5 between 1967–68 and 1969–70. Although each zone is expected to become self-financing after five years of Government assistance, the Menguené Zone has become self-financing after about four years.

Although some problems remain, especially in loan repayment by some planters and in further training for women and youths, the ZAPI projects appear to be on their way to success.

2. CHURCH-SPONSORED RURAL DEVELOPMENT PROGRAMS

a. Christian Rural Service—East Africa

The Christian Rural Service is distinguished by its involvement in local communities. The participation of its members on a continuing, long-term basis is one of the principal aims of the CRS. Students and field workers operate in their home areas, and the program is structured to maintain a close relationship between them over an extended period.

CRS's underlying objective is to strengthen student conviction in the potential rewards and satisfaction of rural life. New skills, together with a shared religious experience, are the means employed to help advance rural life towards the project's goal. By giving substance to the concept of rural development, the CRS seeks to prove that the slogan "back to the land" signals a viable and attractive alternative for the people of East Africa.

CRS reaches into several areas of home and village life—farming, health, hygiene, adult education, home improvement, village industry, youth work, and community self-help projects. The education of church leaders and the training of local voluntary workers are included within the project's scope.

The following description applies to the CRS program in the Anglican Province of Uganda,* as well as to similar programs in Kenya, particularly at Lugari, near Soy in Western Kenya. The latter, administered by the Rev. Shadrack W. Opoti of St. Francis Mission, Soy, operates under the Anglican Diocese of Nakuru.

Program Activities

1. Farming. CRS has introduced new agricultural methods, as well as new seeds and crops in rural areas. Planting crops in rows, instead of on a haphazard basis, for example, has improved yields of millet, maize and other crops on farms in the Madi and West Nile districts of Uganda. In Ankole, Uganda, demonstration plots of hybrid maize at the homes of CRS workers have stimulated requests for new seeds. Vegetable and fruit growing for market has taken hold in several areas, including Lugari.

2. Home Improvement. In Rwanda, many farmers have replaced grass dwellings with tile-roofed houses. CRS self-help groups have been formed to produce the tiles and sell them to people who wish to rebuild their houses. Improved kitchens have resulted from the introduction of raised cooking stoves and simple cupboards and shelves made of sticks and papyrus.

3. Health and Hygiene. Health education under CRS has increased the number of families that use boiled water for drinking. In Lugari, more than 50 new latrines have been dug; pesticides have been employed by numerous householders in West Buganda. Family planning services have also been established in Lugari; some 105 women registered for the program and many others have received counseling from visiting nurses.

4. Village Industries. Beekeeping has proven to be one of the project's least expensive and most popular industries. Under Rev. Opoti's direction, 101 individuals in Lugari have built hives. Although the cheapest wooden beehive costs over $10 and a smoker (used for making bees sleep while taking

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* This is the term used to denote the Anglican Church administrative unit that includes Uganda, Rwanda and Burundi.

honey) costs about $5, a woven beehive can be constructed for 50 cents. A smoker can be improvised for about 20 cents. Both honey and beeswax find a ready market in Kenya.

5. Christian Stewardship. CRS in Uganda has developed what it calls a God's Acre Project. In this project church members provide voluntary labor to cultivate crops on church land. This land serves as a demonstration plot, and also provides a means by which farmers who are short of cash can make a contribution to the church.

Staff

CRS field workers are usually recruited from among church members. A willingness to work in rural areas and an ability to work with people are two of the principal requirements for prospective staffers. Monthly salary for a full-time field worker is roughly $30, plus a small bicycle allowance.

The strength of CRS lies in the fact that its field workers are permanent residents of the communities where they work. This provides a built-in commitment to rural development; it is not necessary to convince the workers of the value of what they are doing. The motivation of CRS field workers contrasts sharply with the attitude of many government civil servants, who resent being sent to rural areas and take little interest in their jobs.

In Uganda and Rwanda, as of December, 1970, CRS employed 15 full-time workers and 139 volunteers in 61 centers. With a total membership of 4,485 in various clubs and self-help groups, CRS estimated that its programs reached at least 25,000 persons.

Initial training of field workers usually takes place on the job, and is followed by a one-week course at a district farmers' training center or at a rural training institute. The curriculum in these courses includes Bible study, program planning, and training in teaching practical skills.

In the Anglican Province of Uganda, the Rev. A. Baillie and his wife, both expatriates, have directed CRS since January, 1969. They estimate that the project will be self-supporting in eight to 10 years. At Lugari, however, no expatriate staff are employed in the program.

Funding

CRS receives little financial support from the East African governments and depends on church organizations for most of its funds. The Church of Uganda, Rwanda, and Burundi provides housing for CRS workers; it is hoped that in the future, the church will be able to pay a large share of the program's recurrent costs. The three external organizations supporting the work of the CRS are World Neighbors, the World Council of Churches, and Christian Aid. The latter group pays expatriate salaries for the Province of Uganda (roughly $6,500 per year); World Neighbors provided $9,000 for 1971–1972 and the WCC provided roughly $22,500 for the period 1971–1974.

Conclusion

CRS programs—on a modest budget—have reached many people in the rural areas of East Africa. Studies have indicated that the impact of CRS teams is more intensive than that of government extension agents. Although the government workers are often better educated, they tend to lack the personal commitment that characterizes the CRS worker's relationship to his community. CRS does not, however, attempt to compete with government efforts in rural development. A sound working relationship, based on cooperation, has evolved between CRS and government officers and extension workers.

The critical issue for the future of the project will be the ability of local African churches to meet its costs. Support from outside sources in Britain and the USA will be contingent upon demonstration of local backing. The National Christian Council of Kenya has agreed to pay one field worker, a carpentry instructor at Lugari; as already noted, the Uganda Church pays for workers' housing. Grants of this kind must be substantially increased if the work of CRS is to expand and meet its potential in the countryside of East Africa. CRS has demonstrated that privately supported extension programs, run on a small scale, can yield impressive results for little money.

b. East Africa Yearly Meeting—Kaimosi, Kenya

This rural project is a church-financed, non-governmental extension program similar to Christian Rural Service. The program is supported by Friends Churches in Kenya and overseas, and was started in 1962, with World Neighbors of the United States providing most of the funds for recurrent costs. Some 15 to 20 village-level workers reach an area of about 30 villages in the Western Province of Kenya. These workers are the key to the program's success. Most have completed only primary school. They receive about $30 per month, and concentrate on six to eight villages in an area.

Supervision and Training. Field workers receive a considerable amount of supervision through (a) visits from team leaders every four to six weeks; (b) submission of self-evaluative monthly reports; (c) five-day staff conferences that are held every two months; (d) five-week training courses that are held every 18 months; and (e) periodic visits of a mobile training unit to assist in specific subjects requiring the use of audio-visual aids.

Cost-Benefit. Although no data is available on the program's impact, the project's annual budget of $23,000 means that for well under $1,000 per village per year 30 villages receive intensive instruction on such topics as vegetable growing, livestock raising, nutrition and family planning.

c. Faith and Farm—Northeast Nigeria

Faith and Farm is an agricultural apprenticeship program that operates in the Jos and Maiduguri areas of northeastern Nigeria. The project is run by a small team headed by a Nigerian, and is controlled by the Council of the Plateau Church of Christ in the Sudan.

Teenage boys and men are chosen to serve a nine-month apprenticeship to master farmers. The period of apprenticeship covers a complete growing season. The master farmer receives only $16, paid by the apprentice for food. The main objective of the training is to teach the use of oxen for ploughing. After training, the apprentice receives a plough and one bull—value $100—from Faith and Farm. Relatives are expected to provide the second bull, as well as seeds and fertilizer. Faith and Farm helps the apprentice find land. The program also gives training for two weeks every year to lay pastors who act as extension agents and salesmen, receiving no pay other than 7½ per cent commission on the sales they make.

Of 65 apprentices who completed training in the first 10 years (some 74 trainees began in the program), 52 were still farming in 1970.

3. EAST AFRICA: FARMER TRAINING

Farmer Training Centers (or Farm Institutes) exist in all the English-speaking countries of East and Central Africa and in Lesotho. In East Africa they are particularly well established, having been founded during the 1950's by British agricultural officers. These centers offer one- or two-week residential courses for adult farmers and their wives.

There are also agricultural extension services throughout eastern Africa. At first glance, this method of training contrasts sharply with the FTC model, since extension assistants visit farmers at their homes, seeking to introduce change through instruction on a one-to-one basis. The conversion of subsistence farmers to cash-crop farmers is often the primary aim of extension work.

FTCs and extension services are by no means mutually exclusive; the former are usually viewed as an integral part of the latter. Inevitably, though, comparative evaluations have been attempted. These have stressed the strengths and weaknesses of each approach. The descriptions that follow attempt to elaborate on the relative advantages of each kind of program.

a. Farmer Training Centers

FTCs in various English-speaking countries have several common characteristics. Typically, an FTC can accommodate 50 to 60 students at a time. Usually an FTC includes one or two dormitory blocks, offices, a kitchen, a dining room-lecture hall, and a demonstration plot. Most centers include a farm of more than 50 acres. Cash crops produced on the farm are expected to offset part of the recurrent costs of the center. Centers are usually run and staffed by the extension service of the Ministry of Agriculture; in Kenya and Tanzania, however, several centers are run by church organizations in cooperation with the extension service.

The greatest potential of the FTC is its multiplier effect among farmers in the area it serves. Studies in Kenya and Tanzania indicate that farmers who have attended FTC courses tend to adopt new agricultural practices and often influence their neighbors to do the same. If FTCs were to concentrate on opinion leaders in rural districts, their multiplier effect could be greatly increased.

There are several inherent advantages to the courses offered at a Farmer Training Center. The FTC staff can concentrate on the teaching and demonstration of a particular method or skill during an intensive learning period. The center can also adopt a flexible approach, offering a wide variety of courses or choosing to focus on the needs of a particular group, such as the members of a cooperative. In addition, the FTC has a strong potential social impact because it takes farmers and their wives away from the traditional influences of their home surroundings.

Limitations

There are limits to the effectiveness of the FTC. A center's value lies in the teaching of a specific skill that offers a quick economic payoff. Courses in general agricultural training have little impact among the educated, relatively progressive farmers, who are most often recruited by field workers to attend FTC courses. Many staff members at FTCs continue to rely on the classroom lecture approach, as opposed to demonstration, and their lectures often dwell on basic general information. This may explain why many FTCs are underutilized; in Kenya, unfilled places in FTC courses increased from 14 per cent in 1965 to 41 per cent in 1969.

If the FTC is to serve adult farmers, instruction must be relevant to specific needs. Literacy and a general agricultural education are vital prerequisites if a farmer is to benefit from an FTC course. The clientele of the centers will continue to be limited until *all* adult farmers in the surrounding area have had several years of schooling, are literate, and can approach a center's courses with particular goals in mind.

Impact of FTC Courses

To date, there has been no comprehensive evaluation of an entire FTC network, and almost all available material refers only to East Africa. The following general themes characterize the studies that have been done:

1. FTC farmers show a higher rate of adopting new agricultural practices than do other farmers.
2. A high percentage of FTC farmers name the FTC as their major source of agricultural information.
3. A high percentage of farmers who have attended an FTC course say they would like to return.
4. FTC farmers have higher cash incomes and a higher standard of living than do other farmers. Since wealthy, progressive farmers are more

likely to attend FTC courses than are poorer farmers, this economic indicator is probably of limited significance.

Several statistical studies from Kenya provide evidence of the FTC's multiplier effect. In one province, 200 plots of maize were planted by farmers who had attended an FTC course. The yield of these plots was triple the average for the area. Within two years, there were 5,000 such plots in the same province. In Kirinyaga District, cotton was planted on 75 plots by FTC-trained farmers. These plots yielded up to 2,500 pounds per acre instead of a typical 500 pounds. The following year, 700 such plots were planted in the district. Although these figures suggest that FTC instruction has a considerable impact, they do not reflect the fact that the work of the FTC is separate from that of the extension service.

Costs

Average capital cost of a new Farmer Training Center was estimated in the Government of Kenya's 1964-69 Development Plan at $84,000. Recurrent costs for a 60-bed center are about $16,800 per year; staff salaries account for about 50 per cent of this cost. The cost of instruction per student per day may range from $1.40 to $2.80, of which the student may pay up to 10 per cent.

No complete cost-benefit analysis of FTCs has yet been attempted, but there are indications that their internal efficiency surpasses that of the extension service. In a study conducted in Kenya's Embu District, farmers mentioned FTC staff twice as often as they mentioned Technical Assistants (extension workers) as the source of information on new methods of growing maize. The salary costs of 25 Technical Assistants in Embu were about twice as much as the recurrent costs of the entire FTC (assuming an FTC teaching staff of five).

Suggested Strategies for Developing FTCs

One possible function of the FTC, as yet untested, would be the training of extension assistants. The FTC could provide more effective training (an initial short-term course followed by periodic in-service instruction) than the two-year agricultural college course taken by many extension assistants. Such training would promote greater integration of the FTC and the extension service and would strengthen cooperation between the more progressive farmers and the extension assistants. Progressive farmers are more receptive to field workers who have had up-to-date training and who have something specific to teach.

Another strategy would involve a system like one employed in Rhodesia. There, a central FTC trains staff. Some 700 local FTCs serve as low-cost bush shelters. The potential mobility and the lower cost of this model make it useful in areas of low population density. A program of this type could maintain continuous contact with large numbers of farmers and could combine farmer training, at a *mass* level, with literacy or health training, or with some kind of non-farm vocational instruction. Sufficient skilled manpower must, however, be available to staff a large number of local FTCs.

A third option would be to expand existing FTCs, making more intensive use of their demonstration plots and farms. The FTC in each district could become a center for applied agricultural research, coordination of credit, and distribution of seeds and fertilizer. The upgrading of district FTCs and their utilization in agricultural research would then serve to attract university-level specialists to the field of farmer training.

b. Agricultural Extension Services

Extension services seek to provide adult farmers with advice and training. The caliber of extension staff has been the cause of considerable criticism in recent years. Although he is supposed to act as a catalyst for change among subsistence farmers, the Agricultural Assistant has often had only a few years of schooling himself. At present, however, the vast majority of new extension assistants have completed four years of secondary school and at least two years at an agricultural college. As the level of education rises everywhere in Africa, more farmers will have completed primary school, and a sizeable number will have had some secondary schooling. If extension assistants are only slightly better educated than the farmers they visit, it is doubtful whether a useful working relationship can be sustained.

Extension workers are often compelled to spend a good part of every working day traveling. The use of jeeps and Land-Rovers has proved expensive, and budget allowances for gasoline are strictly limited. Most visits are made on foot or by bicycle. In a typical day, an extension worker might be expected to visit two farmers, spending about two hours with each of them. Thus, in a month, the extension assistant might visit 50 farmers.

Potential Impact of Extension

The one-to-one approach of extension has several important advantages. Personal contact between the worker and the individual farmer allows for direct communication and affords the worker a chance to observe what the farmer has been doing. If the farmer has misunderstood previous instructions or has made some error in applying new agricultural methods, the extension worker is in a position to offer specific advice.

Perhaps the greatest asset of extension work is its potential to reach subsistence farmers who are illiterate or poorly educated and who would otherwise never learn about cash-crop farming. In practice, however, many extension assistants devote most of their visits to the wealthier, more progressive farmers.

Several limitations of extension work have already been suggested. On his own land, the subsistence farmer may be suspicious of innovation and experimentation, and opportunities for demonstration may therefore be limited. The extension worker is the bottom man in an administrative hierarchy and is generally not considered an expert. To the extent that the farmer is aware of this, he may be reluctant to heed the extension worker's advice, no matter how sound. The extension worker is often viewed by farmers as an authoritarian, even alien figure. In East Africa, such sentiments are reinforced by the fact that the Agricultural Assistant also collects loans and enforces agricultural regulations.

Suggested Innovations

Improvement of extension services depends on a number of reforms, several of which are being made. Planning must be geared more closely to local needs, and extension services should concentrate on particular crops in areas where a maximum return can be realized in the shortest possible time. Continuous contact should be encouraged among field workers and administrative and research staff. Morale among extension staff needs to be improved; increased frequency of promotion, based on competence and performance, has been suggested as a means of bettering morale.

The single most pressing requirement in extension, however, is for better training of field workers. Although the level of formal schooling among extension workers has increased, the caliber of agricultural training needs to be improved. In addition to practical agricultural training, extension workers would also benefit from instruction in basic economics and farm management.

Conclusion

FTC staffers tend to be more efficient, especially in terms of cost, than their counterparts in the extension service. But this does not justify abandoning the latter approach in favor of the FTC model. Both methods have achieved some success in training adult farmers, and in many cases the effects of the two programs cannot be separated. The two methods need to be integrated more closely. Not only do they share a common aim—the training of the small farmer—but they operate side by side in the same areas and among the same people. As each of these approaches is improved, it is hoped that staff members of each program will work together, rather than compete against one another.

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4. ETHIOPIA

Chilalo Agricultural Development Unit (CADU)

CADU is a regional rural development program serving an area of 120,000 people in the Arussi province of Ethiopia. The program is the result of a bilateral agreement between the Ethiopian and Swedish Governments. The Ethiopian Ministry of Agriculture conducts the project. The Swedish International Development Authority (SIDA) participates in the approval of a detailed work plan and budget and assists in recruitment.

The main objective of CADU is agricultural development. The project has concentrated on increasing small-farm production of cereal crops; improvement in animal husbandry is also a major part of the program and has already resulted in greatly increased milk supplies. The principal method of training is group demonstration organized by the extension service. A model farmer training center is also being developed and an attempt to introduce a cooperative unit is planned. The Commerce and Industry Department is responsible for milk collection, crop marketing and the supply of credit for purchase of seeds and fertilizer.

Under the original agreement, the Ethiopian Government accepted responsibility for the expansion of primary education, the supply of funds for credit, the improvement and construction of roads, and the enactment of land-reform legislation. There has been considerable delay in fulfilling the last two parts of this agreement.

A significant feature of CADU has been the attention paid to conducting feasibility surveys and the inclusion of a systematic evaluation procedure as part of current operations. Although the program is costly, preliminary evaluations indicate significant benefits (higher than predicted) and the possibility of a high rate of return over the total 13-year projected life of the project.

5. IVORY COAST

a. Centre National de Promotion des Entreprises Cooperatives (CENAPEC)

The National Center for Promotion of Cooperative Enterprises (CENAPEC), with headquarters in Bingerville, Ivory Coast, was established by the

Ivory Coast Government and the International Labor Organization. Its objectives are to promote cooperatives in the country, to consolidate those cooperatives already in existence, and to provide training for cooperative leaders and regional cooperative agents. Although the Center was created to assist both rural and urban cooperatives, it has thus far concentrated on agricultural cooperatives, particularly those producing cocoa.

Since its beginning in 1968, the Center has identified economically viable cooperatives, consolidated several small cooperatives to form larger, more stable ones, and promoted new cooperatives where needed. Its activities have been focused on three pilot zones—Abidjan, Bouaké and Korhogo. The Center thus covers the cooperatives of the southern, eastern, central, central west, and northern regions of Ivory Coast. In the summer of 1971, there were 446 cooperatives being assisted by CENAPEC.

Courses Offered

The Center provides several kinds of training. The course of longest duration—two years—is given to those who will hold posts as government agents responsible for cooperatives at the regional level. Competitions are held to select 15 to 20 trainees for each two-year class. Entrants must have already obtained a baccalaureate degree and must have been hired as government officials before their training. These government workers are given scholarships for their training, which features the economic, political, and social factors affecting cooperative formation, the proper management of cooperatives, procedures for obtaining credit, and methods of teaching those cooperative workers who will in turn teach lower level workers. Two-week courses in the techniques of cooperative management, organization, marketing, and other skills are given at the Bingerville Center to the director of each cooperative. These courses make heavy use of audio-visual materials because a large proportion of the directors are illiterate. The Center's Division of Studies and Research teaches elementary accounting to young literates—usually about 20 years old—who then become accountants for the cooperatives. Each cooperative is divided into work groups; CENAPEC trains one member to become a teacher and leader of the group. Work groups help identify outstanding workers who may be recruited and trained for higher management positions within the cooperative.

Each pilot zone has a mobile team of two teachers from the Center. These teachers visit two cooperative villages per week. They use simple picture booklets and cassette tape recordings. Before any training begins, the research division studies the problems of the target cooperatives to determine whether they are economically viable and to decide which methods, attitudes or techniques need changing, what the credit possibilities are, and what teaching approach will best be accepted by a cooperative's leaders and workers.

Costs

The program's four-year budget for 1968–72 is $1,349,300, or $337,325 annually. Of this overall sum, $774,800 was pledged by the UNDP. This budget includes salaries of the seven ILO experts and additional personnel, as well as funds for buildings and equipment, scholarships for trainees, scholarships to provide overseas training to the Ivorians selected to replace the expatriate experts, and all other expenses. The project was scheduled to be completely Africanized by 1972.

General Comments

CENAPEC is significant for its multifaceted efforts at promoting cooperatives and for training the necessary personnel to keep them running. Other countries wishing to revive or revamp cooperative systems would be well-advised to study this approach more closely. The large government responsibility in such an endeavor, both financially ($574,500 over five years) and administratively cannot be ignored nor, most probably, avoided. The extent of government involvement in CENAPEC's administration is made obvious by a look at the membership of the project's advisory board. This panel includes representatives of the Ministry of Planning, the Ministry of Economic and Financial Affairs, the Ministry of National Education, the Ministry of Labor, the National Bank of Agricultural Development, and the National Office of Vocational Training. Although it is doubtful that any massive training programs for cooperatives could succeed without substantial government assistance, certain aspects of the CENAPEC effort can be utilized by small, grass-roots training projects. Foremost among these are the workbooks used to train cooperative workers.

b. Community Workshops

Four community workshops have been set up in rural areas of the Ivory Coast to prepare village citizens for work on cooperatives. These workshops offer instruction in mechanical skills, electrical skills and carpentry. Community workshops are equipped with machines used in the construction, electrical and mechanical projects of a typical rural community.

Villagers who want to make or repair something come into the workshop where they are taught to use the appropriate machine by two specialists. In return, the villager pays for the use of the machine. This payment goes toward the salaries of the specialists.

Villagers not only produce or repair things they need for everyday life, but also learn to operate a machine they will need to use on a cooperative. (For a further note on programs that attempt to develop village-level technology, see the reference to ITDG and TECHNOSERV in "Ruralization in Dahomey," Part III of this report.)

6. KENYA

Kenya Tea Development Authority (KTDA)

The Kenya Tea Development Authority* (KTDA) is a quasi-government body whose principal function is to promote tea production among small producers while maintaining the high standards that have earned Kenya tea an international reputation. Beginning in the late 1950's, KTDA planted 11,000 acres of tea; an additional 14,000 acres were planted by mid-1968. Plans call for an additional 35,000 acres by 1973, with an average of one acre of tea per grower by that date.

The project operates in those highland areas of western Kenya where tea is the most practical cash crop and where land has been consolidated. (Consolidated land is land that has been demarcated, with deeds assigned to individual landholders. Individual land holdings, which may have covered several plots, are also consolidated into one plot.) A KTDA farm is typically between four and eight acres; the average amount of land used for tea growing in 1968 was 0.64 acres. To be eligible to plant tea, a farmer must be selected by the Growers' Tea Committee in his own district and by the KTDA staff. Approval is based on experience in farming, evidence of land title and credit-worthiness. KTDA provides four services to its members:

1. It supplies and distributes tea stumps for planting, currently at a cost of 1½ cents each. Planting licenses costing $14 per acre are to be introduced in the near future.
2. KTDA provides field supervision and training by extension workers from the Ministry of Agriculture. Training, formerly conducted at Farmers' Training Centers, is now given in on-farm demonstrations.
3. KTDA arranges collection, inspection, and transportation of the tea. Collection and inspection are carried out at local centers built by the farmers themselves. As a result of strict quality control, growers have obtained good prices. Tea factories make two payments, the first averages six cents per pound, and the second about 1½ cents per pound. It is anticipated that world tea prices will drop in future years, but KTDA also plans a gradual reduction of its standard fees.
4. KTDA, through investment in factories, also participates in the processing of tea. To date, funds have been invested in six factories. The Kenya Government's plans call for the growers to eventually own the factories; at present, growers can purchase shares in the factories.

As of 1966, tea production accounted for seven per cent of Kenya's export earnings, and the proportion has increased since that time. The KTDA project has benefited small farmers. According to a World Bank report, the annual net income for one acre of tea in several Kenya districts averaged $142 if family labor was employed, and $78 if hired labor was used. Average annual farm income in Kenya, by contrast, was estimated at only $31. Although the world market price of tea seems destined to decline in future years, the high demand for Kenya tea in comparison to other varieties provides a sound basis for KTDA's future expansion.

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* This description is based on a paper by Clifford Gilpin of Teachers College, Columbia University, and the International Council for Educational Development, 1971.

Transferability

Although training is only a minor aspect of KTDA's functions, the project is included in this report because it is representative of a growing number of quasi-state agencies involved in the production and marketing of agricultural products. Such organizations may be in a strategic position to significantly increase the productivity of farmers.

7. SENEGAL

Animation Rurale*

Since its creation at the time of Senegal's independence in 1960, *Animation Rurale* has reached nearly all of the country's villages in some way; more than 60,000 individuals have passed through the program's various courses.

The concept of *Animation Rurale* originated in Morocco in 1956, and the Senegalese program was based on the Moroccan model. The program's development in recent years has been geared to developing the country, particularly the rural areas.

Goals and Methods

An important feature of *Animation Rurale* is its sensitivity to the problems facing the rural population of Senegal. The end of the colonial era brought a determination to redress serious imbalances between Senegal's rural areas and the country's more prosperous and advanced coastal region. Special priority was thus given to the stimulation of the agrarian economy.

Government activity in Senegal is limited due to lack of funds; there has thus been no massive infusion of goods and services into the countryside. *Animation Rurale* recognizes this and explicitly states that the peasant population must rely on its own resources and initiative. M'Baye Diaw, who heads *Animation Rurale*, has said, "We are not a psychological or propaganda device charged with conditioning the masses in order to facilitate the intervention of state services." On the contrary, *Animation Rurale* seeks to promote grass-roots activity in the social and economic spheres independent, where possible, of financial support from the government.

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* This report is primarily based on information provided by the Animation Rurale, a division of the Ministry of Rural Development, Government of Senegal.

The program emphasizes the positive qualities of rural life that are often taken for granted. The agents of *Animation Rurale* are warned against dictating solutions to the people they serve. The program, then, involves a restoration of confidence in rural life among those who experience it. The trained *animateur* or community-development leader acts as a catalyst in a rural community: he does not espouse ideas, but helps peasants focus on their actual needs. Cadres trained at the National School of the Economy begin by visiting a village; over the course of several days they establish a dialogue with the residents. "Of prime importance," says Mr. Diaw, "is the fact that the peasant himself pleads his own case . . . *Animation* is not a profession, it is a state of mind."

Although initiative for new projects rests with local communities, financial support from government or other sources is frequently invited and required. In such cases, the *Animation Rurale* cadre acts as a liaison between the community and the technicians or civil servants who participate in the project. Official response to grass-roots initiatives has been criticized as excessively slow. Requests for funds must pass through bureaucratic channels, and important documents sometimes are not acted upon for six months or more.

There is encouraging evidence of frank self-criticism in the official documents of *Animation Rurale*. The absence of local capital, and the resultant dependence on outside funding is freely admitted, as is the potential for friction between local cadres and technical advisers. The reasons local plans often come to nought are also made clear. "In the final reckoning, a project may lie dormant for a year or two, and the peasant, out of lassitude, abandons it," a project report notes.

Two Experimental Projects

Although neither of the programs described below is a product of local initiative, both aim at the rejuvenation of rural life and are consistent with the principles of the *Animation* concept.

1. Rural Formation Centers

An experimental program for primary-school-leavers began in 1968 with the creation of six Rural Formation Centers (CFRs). Each center offered a three-year agricultural course to about 40 trainees. The CFRs were to help place youths in rural areas and to make them progressive peasant farmers by training them in modern techniques.

Construction costs for each CFR were about $5,600. The Senegalese Government paid about 65 per cent of this cost; UNICEF paid about 25 per cent, and local contributors provided the remaining 10 per cent. A director and agricultural assistant staffed each CFR. Theoretical instruction was coupled with practical work on a plot adjoining the center. Usually plots were between 11 and 30 acres in size. Each trainee was expected to take over a 10-acre plot near his home upon completing the course.

The first group of students completed courses at the CFRs in mid-1971, but no thorough evaluation of their instruction has been attempted. One positive feature of the program, however, is the willingness to return to the land school-leavers have shown. Their training also has a potential multiplier effect among their families or near their original villages.

One weakness in the CFR program appears to be a difficulty in providing the promised 10 acres of land to those who complete the three-year course. In several districts of Senegal all available arable land is already occupied, and trainees from one of the centers were unable to find land. The caliber of instruction to date has been uneven, and selection of staff will have to be improved. The *in situ* settlement approach of Botswana's Brigades (see Part III) suggests a means of guaranteeing land to trainees.

8. TANZANIA

Cooperative Education*

Background

The rapid growth of the cooperative movement in Tanzania has prompted development of a program for the education of cooperative staff, committeemen, and members. Two institutions, the Cooperative College and the Cooperative Education Center, both based in Moshi, are closely linked in an effort to provide training for persons connected with cooperatives.

At the time of independence in 1961, the Tanzania Government decreed that certain major crops could be sold only through cooperatives. At that time, there were 799 registered cooperatives. By 1970 the number had increased to 1,737. In its policy of *Ujamaa*, stressing socialism and self-reliance, the Government has assigned a leading role to cooperatives. The Arusha Declaration (1967) stated that "major means of production were to be under the control and ownership of the peasants and workers themselves through their government and their cooperatives . . ."

Since 1966, when a government-appointed special committee reported that there was a lack of trained manpower and a generally uninformed membership within the cooperative movement, cooperative education has been given close attention in Tanzania. Both Government and local farmers recognize that abuses (bribes, embezzlement, etc.) have occurred among cooperative and marketing union officials, and that there is a major need for better educated cooperative staff. (Cooperative Societies function at the local level; marketing unions are either regional or national in scope.)

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* This report is based on background papers prepared for the International Council for Educational Development, 1971.

Description

The Cooperative College at Moshi is a relatively formal institution offering residential courses, ranging from three to nine months in length, for cooperative staff who have already completed some correspondence courses. The College opened in 1963 and now has the capacity to handle 300 students. In 1971, 60 courses were scheduled for an estimated total of 1,448 students.

The Cooperative Education Center, which has the same board of directors and principal-director as the College, attempts to reach cooperative members at the grass-roots level. The CEC uses mobile two-man teams called "Cooperative Wings," and focuses on local cooperative committeemen and members, many of whom are illiterate. Films, radio programs and other audio-visual materials are utilized in conjunction with study and discussion groups.

The CEC is Tanzania-run but receives considerable external aid, particularly from Sweden. Similar organizations exist in Kenya, Uganda and Zambia, and the International Cooperatives Association Office for East and Central Africa has thus been able to coordinate plans for assistance in the region.

Staff Education

The training of cooperative staff in Tanzania involves two principal groups—those employed in local societies or unions and those employed within the Cooperative Department of the Government. The latter group consists of civil servants, whose professional training is usually the concern of the Government. But cooperative educators agree that all staff dealing with cooperatives should have a full understanding of the conditions influencing the operation of local societies. Therefore, in Tanzania, every effort is made to integrate the training of civil servants with other cooperative staff.

Thus far, current resources have only allowed for the training of low- and middle-level staff within the cooperative movement. Time and resources have not been allocated to small groups of top-level personnel, even though there is a recognized need for improving the performance of this group. Study-tours in neighboring countries and courses at international cooperative training centers have been proposed as ways of developing high-level manpower training.

Committee-men Education

The management committee of a cooperative must involve itself in the cooperative's daily routine. The CEC has gradually devised methods of educating local committee-men, recognizing that if each of Tanzania's 1,737 local cooperatives had a committee of 10 men, it would be impossible to reach all of them through week-long courses, even on a regional level. A correspondence course entitled "The Duties of the Committee" has been linked with a series of eight radio programs and has served as the basis for instructing local committee-men.

The CEC also encourages the formation of groups of representatives of staff, committee-men, and ordinary cooperative members. These groups are supposed to discuss the problems of each society. They are considered an important means of training in democracy and also of developing marketing societies. The establishment of marketing units is one of the main objectives of the "National Cooperative Education Plan, 1969–74," drawn up by the board of the CEC.

A major problem in educating committee-men is illiteracy. Committee-men are expected to communicate with members of their societies, and should be able to write. In Tanzania, however, it has often proved difficult to find 10 literate men in a village who can be elected to serve on cooperative committees.

Member Education

Since 1967, the member education program of the CEC has made use of radio broadcasts and study groups. Members are invited to come to the society and listen to radio programs prepared by the CEC. After the broadcast, the listeners are split into groups of 10; a four-page manual serves as the basis for discussion. In 1967, 51 broadcasts were prepared, and some 17,000 to 34,000 manuals were issued. The CEC cooperated with the Institute of Adult Studies, Dar es Salaam, in preparing these materials.

The CEC recognizes that within the cooperative movement there is great potential for development of functional literacy programs. Thus far efforts to coordinate CEC's activities with the UNESCO-sponsored literacy project in Mwanza have not met with much success. Another joint effort in this area may be undertaken in the near future. One of the problems in implementing a functional literacy campaign is the wide range of interests expressed by members of a group such as a local cooperative society. Typically, literacy projects have only been able to produce materials for people interested in one or two subjects. A more flexible approach is desirable if functional literacy programs are to fulfill their potential.

Organization

The CEC in Moshi produces material for the correspondence courses, as well as other study material. The CEC has also enlisted the help of marketing unions, encouraging them to take responsibility for training cooperative members in their areas of operation; many unions have employed or appointed cooperative education secretaries. CEC has also recommended that each union elect a subcommittee for cooperative education, and that the union's annual meeting vote funds for education projects. Unions organize groups to listen to radio broadcasts and use the correspondence materials distributed by the CEC.

Summary

The main purpose of cooperative education programs is to convince cooperative members of the value and possibilities of cooperation. The content of programs centers around marketing cooperatives, which until recently have been prevalent in Tanzania. The recent decision by the Tanzanian Government to phase out marketing cooperatives and to emphasize producer cooperatives has caused many problems for the CEC.

Nonetheless, the organization and techniques of the program are innovative and should lend themselves to effective use in the broader field of adult education. The introduction of mobile training units has facilitated efficient contact with participants and has encouraged the growth of study groups. The combined use of study materials, correspondence materials and radio broadcasts offers an effective method for communicating a variety of messages. The Institute of Adult Education adopted the methods of the CEC to transmit a radio series, *Wakati wa Furaha*, celebrating the 10th anniversary of Tanzanian independence. Indications are that this kind of program can be administered at a relatively low cost.

9. ZAMBIA

The Chizera Project

The Chizera Project in northwest Zambia is a broad attempt to address problems in agriculture, horticulture, nutrition and health. A team from the British Volunteers Service Overseas runs this project on a 60-mile stretch of road in the Kasempa District of Zambia. The project staff consists of a team leader who is a horticulturist, an animal husbandry specialist, two agriculturists, one of whom is an agricultural economist, a girl who helps women with family garden plots, a nutritionist, a nurse, and a mechanic.

The agriculturists work to improve and increase output by introducing improved feeds, fertilizers and sprays. The horticulturist, in a long-term effort, is introducing the growing of fruit trees because little such farming has been done in Zambia. The animal husbandry expert is trying to improve the strains of local animals. The nutritionist tries to change eating habits and attitudes toward health by using posters and materials furnished by the Zambia Nutrition Commission.

Financial Support

The project has been funded by the Zambian Government and by contributions from the Oxfam Foundation of Great Britain. About $30,000 a year is contributed by the Zambian Government; Oxfam contributes a similar amount. The province also contributes to the project when it can. The first year of operation, which began in October, 1969, cost between $75,000 and $90,000 because a camp for volunteer workers had to be established. Volunteers have three Land-Rovers and three Honda motorcycles at their disposal. Oxfam pays the volunteers and supplies funds for whatever travel costs and unpaid expenses are left after the Zambian Government makes its contribution.

Impact

In one area in which the project has been operating, acreage under cultivation has increased about 500 per cent. Output per acre has also increased.

The project helps rural villages to increase and market their output. It also helps to discover strains of livestock and fruit trees that can be developed on a large scale. This is particularly important because the Zambians are looking for an agricultural product that they can establish as significant in Africa. The project is also important because it combines agricultural activities with efforts in preventative medicine and nutrition.

PART
V

Multi-Purpose Training Programs

MAJOR CASE STUDY NO. 5

CAMEROON: PAN-AFRICAN INSTITUTES FOR DEVELOPMENT—DOUALA and BUEA

Objectives

The Pan-African Institute for Development (IPD), a private international non-profit organization with headquarters in Geneva, has established two schools in Cameroon, the first in Douala in the East, the more recent in Buea, West Cameroon. The schools train government employees with at least a high school education, but without university degrees, from all over sub-Saharan Africa (the French-speaking at Douala, the English-speaking at Buea). Trainees are expected to fill middle-level management positions in public and private development programs. The hope is to narrow the gap between university-educated top-level administrators who formulate development plans and the masses whose lives are affected by such plans. The Institute trains its students to participate in and guide the implementation of such plans and to contribute to the formulation of development policy. In the second year of training, the program offers three areas of specialization from which students can choose—*Animation Rurale* and adult education; regional development; and organization and management of cooperatives.

History

The need for an African institute to train middle-level development personnel was recognized during a 15-day inter-African colloquium held at Douala in May, 1962. Participants included administrators of private associations, youth movements, trade unions, and family and social organizations. Through the efforts of Mr. Fernand Vincent, a Swiss economist who founded the Workers' College *(College de Travailleurs)* in Douala, and with a private donation of 50,000 Swiss francs, the International Association of the Pan-African Institute for Development was established in Geneva in February, 1964. The association's 16-member administrative council was made up of Africans and Europeans.

Douala was chosen as the location for the organization's first school. Considerations in choosing Douala were the Cameroon Government's support of the project and the existence of both forests and savannah in a concentrated area (allowing the students exposure to two major types of African geography).

The pan-African possibilities deriving from the school's location within a bilingual federation and the fact that Douala is a crossroads for air travelers were also considered.

Throughout 1964 the organization sought support from donors willing to give assistance without imposing conditions. Such aid was pledged by MISEREOR (a private German Catholic organization), the European Economic Community, the Swiss Technical Corporation, the German *Institut für Internationale Solidarität*, and private donors.

African governments and development organizations were contacted concerning sponsorship of students; eight governments and five organizations in Francophone Africa responded favorably. Unused buildings were located and renovated from February to December, 1964. In January, 1965, staff were recruited, including a French economist as director, and two Belgians, one a social scientist and the other an agricultural engineer with African experience, as teachers. Mr. Vincent, the Swiss economist, became the secretary-general of the organization. In April, 1965 the Cameroon Government gave the Institute permission to operate and courses began. In November, 1965 a second class of students arrived and a council of studies, as well as a cooperative of IPD students and personnel, was formed. Two years later a research service was added to the school and in December, 1968 the General Association of Students of IPD, including former graduates, was begun. A year later the Du Sautoy College was created in Buea to give similar training to sub-Saharan Anglophone Africans. The Buea College was named after a well-known community development leader in Anglophone Africa.

Recruitment and Admission Requirements

Only candidates who have passed their first *baccalauréat* degree (equivalent to a high school diploma) are considered for admission and preference is given to those who have had further training in agricultural school or practical field work in extension, cooperatives, community development, etc. In the past, the majority of students have had such experience, but at present about half come directly from the *lycée*. Each Francophone country is assigned a quota of students, based on the country's population and number of *baccalauréat* recipients. Students can be nominated by government ministries in their home country, by private development-oriented organizations, by agricultural societies or chambers of commerce, or by development agencies. The nominating body must give a written guarantee that it will hire a student when he has completed training.

A competition is held in each country to decide which nominees will be finally selected. This competition consists of a written section, with questions formulated and corrected by the Institute, and an interview before a panel of technicians of development groups, public agencies, and sometimes IPD representatives. Written questions pertain to economics, pedagogy, environmental and demographic knowledge, mathematics (accounting and statistics), and general cultural knowledge. The interview centers on the candidates' motives, conduct, practical experience in development, common sense and intelligence. Each country is allowed to fill its quota only if it has enough candidates successfully completing this exam. Those who pass are sent to the Institute for a three-month trial period, during which the staff evaluate each candidate's ability on the basis of field exercises, class participation, exam performance, etc. Those students qualified for further training are granted final acceptance, while others are returned to their countries. Of the 183 students entering in the first five classes (1965 to 1970), only three have been eliminated for insufficient qualifications after this trial period.

Curriculum and Methods

The objective of the Institute is to train its students to identify the developmental needs of a particular area and to formulate plans to meet these needs. Students are sent to live with families in villages in a series of field exercises, during which the student identifies specific problems. The problems are then discussed in the classroom, general conclusions about development are reached, and solutions are prescribed by the students. Theoretical principles are learned from concrete situations.

The first-year curriculum, common to all students, is organized in seven steps:

1. The first step, which lasts three weeks, explains the relationships among political economy, demography, sociology and agriculture in the development process. Students are expected to demonstrate their understanding of these relationships in reports on their homelands.

2. The second three weeks are devoted to studying the family. Students prepare questionnaires and list phenomena to be observed concerning families. This preparation is followed by an eight-day period during which each student lives with a family in the bush, adapts to their living conditions and observes their everyday habits. Back in the classroom, students write reports from which general conclusions are reached about types of families, regional characteristics, family budgets, and the implications of the family as an institution. All of this enables students to pinpoint those factors in the family that either accelerate or thwart development.

3. The third stage lasts five weeks and consists of a similar 14-day field phase at the village level, this time in teams of two per village. This field exercise is preceded by courses in the rudiments of economics, demography and sociology. The students learn the techniques of interviewing, of using statistical tables, and of cartography. During the field phase, each team outlines a simple development plan for a village, based on its particular needs. Again, this phase is followed by team reports, group discussions and criticism.

4. Step four consists of a regional study of nine weeks' duration. This study is divided into two parts. The study phase consists of classroom prepara-

tion for a field exercise. The field exercise lasts 10 days, during which teams of five or six students investigate a region at the *prefecture* level. Students contact administrative authorities and technical services, visit businesses, factories and research centers, determine important data about the region, study a plan for the region considering the implications of such statistical data, and write a report synthesizing the economic, political, demographic and sociological factors influencing the region's development.

During the second phase of the regional study, students are taught the subjects needed for implementation of a development project, e.g. management, accounting, organization, etc. Then the same teams are sent back to the same *prefecture* for eight more days. These teams plan a development project that fulfills some of the needs discovered in the study phase. The team must justify its project economically and socially, must analyze its probable effects, must describe and organize it in detail, must calculate costs, profitability, and the time needed to execute the plan, as well as determine which people should manage the project. After the field phase, these project descriptions are evaluated, criticized, discussed and corrected. In 1970, several villages undertook the recommended projects after the students had left.

5. The fifth step is a four-week study of the nation. The students examine the steps necessary to develop a national development plan. They also study family, village and regional reports from several areas. Documents, monographs and special reports concerning other African nations are also studied; when possible, officials from other countries who work in national development planning are brought to the Institute for discussions.

6. During the sixth step, students again consider economics, demographics, and sociology. Students also examine international organizations, regional and world markets, ideologies, and economic alliances.

7. The final step is an overall review and synthesis of the principles learned during the year. Once again, the relationships among various disciplines are stressed, and conclusions are reached about factors stimulating or hindering development.

During the student's vacation between the first and second years of training, he returns to his home region, or to the region where he will be employed upon completion of his studies, and writes a monograph on the economic, political, social and demographic situation there. This monograph is graded at the Institute and kept in the school's library. At the end of the second year, the student writes a *mémoire* concerning one specific developmental problem in the region he has visited, with proposed solutions. Although the second year is primarily devoted to the student's specialty, he still attends courses in economics, demography, sociology, agriculture, accounting and management, statistics, organization, etc. The specialized curricula are described below.

I. Rural Animation-Adult Education Section

This section is divided into progressive steps:

1. Analysis of the economic, social, political and demographic situation of various population groups. Students take courses in rural sociology, psycho-sociology of groups, and property law; they study statistics, family, village and community budgets, and map analysis.
2. Discovery and description of institutional structures. Courses are taken in development projects, the operation of foundations and private enterprises, and the cooperative movement. Enterprises and foundations are visited during this phase.
3. Elaboration of *animation* (community development) projects and training sessions. Courses are taken in health, economic geography, and politics. Techniques of *animation* are learned, and legislation affecting *animation* are studied. A two-week practical session is organized to prepare *animation* proposals and training sessions with interested individuals or groups.
4. Execution of proposals and holding of training sessions. The students take courses in pedagogy and learn techniques of obtaining credit, of establishing manual workshops and of establishing or utilizing centers, films, theater, and ~~lectures~~ for teaching purposes. They also learn methods of organizing discussion groups, and of expression and communication (diction, lecture, improvisation, correspondence, use of audio-visual aids, etc.). Students are then responsible for organizing a three-week training session for groups of villagers and village leaders.

II. Cooperative Section

The objective of this section is to train regional cooperative administrators. Students first analyze current cooperative organizations, concentrating on the causes of their success or failure, commercialization methods, structure, profitability, and influence. Cooperative experiences in other countries are also studied. Then, in a two-week project, students examine a cooperative having difficulties. The second step is to study how a cooperative is established: measurement of attitudes, different types of cooperatives, the legal constitution and organization of a cooperative, cooperative legislation, interaction of cooperatives with other regional institutions, and the role of the cooperative in the development plan. Students then spend several weeks studying a specific regional network of cooperatives and national cooperative organization. The third step is to study more specifically the administration and financial management of cooperatives and the training of cooperative personnel. At the end of this step each student spends three weeks in a cooperative, after which he writes a monograph analyzing it.

III. Regional Development Section

The purpose of this section is to train regional plan administrators. Training begins with a discussion of what it means to be developed or underdeveloped, and the phases of development. The progress of a region is then analyzed through statistical data. Local, regional and national accounting techniques are learned, and studies are made through graphs and tables of the development potential of a region. Students then spend four weeks in a region collecting data for a monograph and assembling this data into a summary of the development potential of the region.

The formulation of development projects and plans is the next phase of study in this specialty. At the project level, students learn how to formulate and justify a project. They also study the relationships among various projects, and the integration of project networks into the national plan. The plan itself is then studied. After this phase, students spend 15 days outside the zone in which IPD is located, and if possible, outside Cameroon. Upon their return, students undertake the final phase of study—the execution of plans. Included are the translation of a national plan into regional programs, and the study of practical techniques for executing plans. This phase is supplemented by visits to enterprises and service organizations.

Exams and Diplomas

Exams are given regularly, the most important coming at the end of each academic year. Grades are given for exams, for field work, and for participation and conduct. Students receive grades each trimester, and their weaknesses are indicated along with suggested corrective measures. A student's accumulated record over the two-year period constitutes his final grade. Any student who receives 10 of the 20 possible points is eligible to receive the diploma of *Cadre technique du développement.* A student who receives a final grade between nine and 10 is eligible to retake the second year, provided his home government consents and he is able to cover the cost of his schooling and living expenses. In many of the participating countries, the IPD degree is recognized as equivalent to a B.A. degree plus one year of specialization.

Profile of Students and Teachers

The number of students in each class at IPD in Douala has increased from 36 in the first class in 1965 to 62 in the seventh class which started in November, 1971. The Institute plans to set a limit of 130 students for its two classes. Staff size, limited building facilities, and the desire to keep course attendance at a level consistent with discussion, rather than lecture methods, are the reasons for planning such a limit.

Table I indicates the nationalities of the students between 1965 and 1971:

Table I

Burundi	4
Cameroon	72
Central African Republic	21
Chad	22
Congo-Brazzaville	9
Dahomey	12
Gabon	7
Ivory Coast	8
Madagascar	2
Mali	1
Mauritania	2
Niger	24
Rwanda	4
Senegal	1
Togo	32
Upper Volta	11
Zaïre	15

The teaching staff at Douala has grown from four in 1965 to 12 in 1970–71; four more teachers were expected to join the staff in the 1971–72 academic year. Of the 25 teachers who have taught at various times, four are Cameroonians, one is Angolan and one is Togolese. Other teachers are European. Among the program's 25 teachers, there are seven economists, three sociologists, two teachers with training in economics and social science, two social educators, one geographer, two agronomists, one agricultural economist, two accounting experts, one business expert, one community-development officer, one researcher, one jurist and one jurist-educator. Because of the progressive methods used at the IPD, most of the teachers are young (the oldest being about 45), and most were *not* previously professors but had worked extensively in the field. The present director has occupied the post since October, 1970, and is a Cameroonian sociologist; the president is also a Cameroonian.

The Institute would like to Africanize its staff further, but qualified African university graduates prefer to work for the government or for business. The salaries of the European staff are paid by their respective governments or donor agencies, while African salaries would have to come directly from limited Institute funds. Furthermore, the Institute does not wish to risk its political neutrality and autonomy by having each African government provide a professor. The Institute does hope that it will be able to require participating African countries to contribute to the school. It is expected that such contributions would provide about five per cent of the total operating costs of the school. These contributions would be increased by five per cent per year over the next five years. If such contributions are made, the Institute itself could hire African teachers directly.

Costs and Outside Contributions

The total annual cost of operation per student, including both capital and recurrent costs, has been held at about $3,700 over the last four years. Table II indicates the approximate growth of the budget since 1965:

Table II **Annual Budgets**

Year	IPD Douala	Du Sautoy/Buea
1965	$ 85,185	—
1966	170,390	—
1967	222,200	—
1968	259,260	—
1969	314,815	$ 18,515
1970	366,670	118,520
1971	385,190	188,520
1972	444,500	148,150

To cover these costs, outside aid has come from a number of sources, the largest being the European Economic Community, through its European Development Fund (FED). The FED has provided scholarships for all students attending the Institute. Scholarships, given through a scholarship office in each African country, consist of the following payments:

$83 per student per month for 11 months to cover living and food expenses;
$1.85 per student per day during field phases of study in villages, etc.;
$83 per student per year for books and supplies;
$35 per student as an initial installation fee;
80 per cent reimbursement on any medical expenses incurred;
One round-trip ticket to Douala from the student's home;
$74 per month per student for school fees (from this money salaries of African staff members are paid).

Only the funds for this last item are paid directly to the Institute; all other monies are put into the student's bank account.

The Swiss Government provides an annual subsidy of about $82,000 in salaries for the Swiss professors and for general operating costs. The West German Government-subsidized Institute for International Solidarity provides an annual cash contribution plus one professor. Total value of these contributions is about $45,000 annually. MISEREOR provided funds for the construction of the Institute and for the research center; in 1969 it provided about $45,000 to help build the Anglophone center at Buea. *Brot für die Welt*

(Bread for the World) has provided funds for equipment and vehicles. Through its Ministry of Cooperation, France provides the equivalent of $28,000 annually in the form of two professors and administrative costs. The Belgian Government provides a professor of agronomy and support costs, totalling nearly $20,000 annually. The Austrian Government provides one professor at the annual cost of $6,000. In 1969, the British Ministry of Overseas Development provided a specialist at a cost of $10,000.

The United States Agency for International Development has recently agreed to provide, from 1971 to 1975, about $300,000 worth of scholarships for IPD students, audio-visual commodities worth about $70,000, two experts (one in audio-visual media, the other in agricultural extension), and funds to train Africans in the U.S. to eventually take the place of these experts. Total USAID payments over the next five years will be about $730,000, mainly for the new college at Buea.

African contributions consist of continued payment of salaries to those students already employed before entering the school and the cost to the Cameroon Government of placing students in families and villages during the field phases (such placement involves the services of the Ministry of the Interior, district commissioners, and village chiefs). The Ivory Coast Government pays the salary of one of the African professors at IPD.

Buildings

IPD at Douala is in a relatively simple two-story building rented from Catholic missionaries. It has two classrooms for the first-year students, four large rooms for second-year students, two large rooms for general use (one is sometimes used as an auditorium) and five small classrooms for small group discussions. There is also a library and a room for the college's audio-visual equipment. One wing of the building is used for student dormitories, where two students usually share a room. Pressure for additional accommodation has, however, led to rental of additional space.

The professors have relatively little space; two or three share an office. The college is, therefore, economical in its use of building space. There are no immediate plans for construction of more buildings. Present facilities are crowded, and IPD can only accept a small portion of the students African governments would like to have trained. In 1970, for example, the Federal Republic of Cameroon wanted 87 students to attend IPD, but only eight could be accepted. It would seem highly desirable to expand the IPD's capacity, or to establish similar centers in other locations.

Follow-up of Graduates

Efforts have been made by the Institute staff to keep in touch with former students through correspondence, visits, and an alumni magazine. The Institute's director and its general delegate to the parent body in Geneva have made tours throughout Francophone Africa to inform high-level officials of the activities and progress of IPD, to discuss recruitment of new students, to find out what kind of training or curriculum modifications the governments would recommend in order to train better qualified men for middle-level positions, and to find out what former students are doing.

The alumni magazine, the *Bulletin de Liaison des Anciens*, which appears triannually, prints correspondence from alumni concerning their jobs and monographs about development problems or projects submitted by alumni and professors. Thus contact is maintained among former students and between former students and the Institute, and ideas and technical advice are shared.

The results of follow-up studies are encouraging. Nearly 100 per cent are employed, since a written guarantee of employment is a condition for admission. Table III shows the high percentage of alumni whose jobs are known to IPD and the degree to which these jobs relate directly to the training given. The table also indicates the high degree to which alumni acquire positions at the local, regional or departmental level, rather than at the upper-echelon national level. This result conforms with IPD's goal of training middle-level development administrators.

Table III **Employment Positions by Category of IPD Graduates**

Total number of diplomas	163
Jobs known to IPD staff	161
Regional and departmental development planning and assistance	37
Agricultural training and *Animation*	29
Cooperative formation or education	25
Other adult education	6
National-level planning or ministries	21
Furthering own education	3
Youth education	6
Agricultural marketing	13
Private business	5
Private social-action group	1
Diplomatic corps	1
Import-export control	1
Other	13

General Comments and Evaluation

Several aspects of IPD make it an important contribution to non-formal education and to development in Africa. First, it has properly identified an important missing link in the development chain: the middle-level administrator, who translates theory into action and who must be equipped to examine existing situations and formulate solutions. Not only has the Institute identified this shortage, but it has developed an original and seemingly successful method of training. The method of observing first, theorizing on the basis of the observation, and then proposing solutions has great potential for developing perceptive and creative administrators. A professor at the Institute remarked that when the students enter they tend to obey but have no critical ability. By the time they leave, he said, a noticeable change has occurred in their critical ability and in their leadership tendencies. Furthermore, the field phases of the study provide an action-oriented bias too often neglected at the university level.

The pan-African nature of the Institute provides useful contact between similarly motivated people from different political and social backgrounds; it also prohibits the imposition of moral or political directives from any one African government. Nevertheless, anyone contemplating the establishment of a pan-African institution must be aware of the disadvantages. Since no one country has political jurisdiction over such an institution, there is no possibility of designating financial responsibility. The founders of such an institution realize that outside aid may be necessary, at least in the short run, if the program is to survive.

Because the primary constraints on expansion of the Institute are limited teaching staff (especially African) and building space, outside aid donors should explore the possibility of contributing to these needs. Funds given directly to the Institute could be used to hire African professors responsible only to the Institute. The present careful and economical use of building space helps to assure donors that contributions made for building investments are likely to be wisely used.

Finally, other African institutions would do well to follow the example of the Pan-African Institute in the field of evaluation and follow-up: the director and secretary-general talk with employers to evaluate the graduates' work and the training experience at the Institute. They also keep in relatively close contact with the graduates themselves. Most interesting is the manner in which such contact is kept: not merely by a questionnaire, which lists the graduate's position and whereabouts, but in a context of sharing developmental ideas and advice. The *Bulletin* informs graduates of the status of other graduates and also provides a forum for further communication about development problems. In this way, the *Bulletin* works to upgrade former students.

Du Sautoy College, Buea

Background

Du Sautoy College (named after Peter Du Sautoy, the late President of the Pan-African Institute) was located at Buea so that it could provide regular communication between the Anglophone and Francophone colleges. The two institutions are within one hour's drive of each other. With the help of the research and evaluation section, started in Douala in 1967, and through the exchange of staff, it is hoped that both colleges can apply the best and most effective methods of training they develop.

Training Program

The training program at Du Sautoy College started in November, 1969. It is patterned largely after the program offered at the original college in Douala, since the aim is to have as similar programs as possible in both colleges, language being the only major difference. There are, of course, other differences. Training at Du Sautoy lasts for one academic year of 34 weeks, in contrast to the two-academic year program at Douala. The training period at Buea was agreed upon after consultation with the governments of Anglophone African countries; these countries felt that they could not spare their staff for more than one year's training.

In order to provide adequate training, it was necessary to have higher entrance requirements at Buea. The participants are nominated by their governments through their heads of department. Participants are middle-level managers in responsible positions, already trained in their fields, and with some experience. At the time of nomination, they are supposed to be involved in the training of supervisory-level field staff or extension personnel either in institutions or in the field. The training in Buea is therefore expected to have a multiplier effect, since those who instruct the trainers are being upgraded. A diploma is awarded to successful candidates, success being determined on the basis of a final examination and assessment of performance during the course.

The aim in Buea is to train around 32 students annually. However, in the first two years of the program (1969–70 and 1970–71) only 24 and 22 students, respectively, were trained. The low enrollment showed the initial lack of appreciation for this kind of training on the part of the governments of Anglophone African countries. Enrollment was expected to be around 32 in 1971–72 and to build up to 60 by 1974–75. Because of the lack of demand, there is no need as yet for competitive entrance examinations, as in Douala.

Curricula

The first half of the training program provides a common core of training to all participants. In the second half of the course, participants concentrate in one of three areas of specialization. The common-core training program is similar to that of Douala, consisting of survey methods, human relations, group structure and development, leadership function and development, extension, communications (including audio-visual arts), decision-making, problem-solving for development, training methods, and evaluation techniques. The three areas of specialization (again similar to those at Douala) consist of training and extension, regional development, and enterprise, business methods and cooperatives.

The first area of specialization deals with the common-core training program but at a more advanced level. The regional-development option includes a study of economic and social factors in development, setting of priorities, administration and implementation of ~~development,~~ coordination of planning and actions involving government departments, local governments, other agencies and the people in development planning and action, and, finally, training of staff and the public. The third specialization option deals with principles, structure and functioning of enterprises, staff development and training, cooperatives, business methods, training and extension, and evaluation.

As at Douala, considerable emphasis is given to small group discussion, with the accent on problem-solving, self-help, and self-reliance. This is made possible by the relatively small student-staff ratio of about 5:1. The hope is that the ratio will increase to about 6:1 or 7:1 as enrollment increases. Participants at Buea also get considerable exposure to actual field conditions during training. Of the 34 weeks of training, 11 are devoted to field work. During this period, students work in villages and at regional levels doing social and economic surveys. They are also involved in development projects and planning and in training and extension situations. Participants work in the wide range of climatic and vegetational zones that they are likely to face on their return home.

Finance

Financing arrangements at Buea are similar to those at Douala; the finances of both colleges are under the administration of the delegate-general of the Institute. Some aid-donors such as Canada and the U.S.A., however, have made special contributions to the Buea college. Because the college is in its initial stages and enrollment is just building up, the per-student cost of training at Buea is higher than the $3,700 at Douala. It is anticipated, however, that these costs will be about $3,750 at both institutions by 1974–75. The costs in Buea have been held down so far because students are being housed in a West Cameroon local government building at a subsidized rent. There is economy in the use of building space, as at Douala, but costs will rise when the college in Buea has its own building. This facility is to be constructed (with 60 students in mind) at a cost of about $560,000.

It is too early to evaluate the impact of Du Sautoy College on the economies of the African countries involved in the program. The college's oldest graduates have been in the field for only one year, and their performance during this period has not been evaluated. The content and methodology of training, and the fact that staff is well qualified, make it likely that the benefits to the economies of the countries involved will justify the cost of training.

BRIEF CASE STUDIES

1. CAMEROON

a. Holy Family Center for Female Instruction—Douala

This center—under the auspices of the Catholic Church—has trained young girls to become capable, modern housewives since its founding in 1962. In 1971, it had 185 students. Girls at the center vary between 14 and 20 years of age. Students are divided into two groups taught by two Catholic nuns and five monitors. Most of the girls have either left or finished primary school, and will become housewives in the future.

Training includes cooking, sewing, family hygiene, and some academic courses such as French and calculus. Girls who have never been to school are also given literacy training. Instruction lasts for either two or three years, depending upon the skills of the girl and whether or not she is already literate. At the end of the course, students receive a diploma of household training. This diploma does not carry any particular right to employment, but does show that a student has completed the training. The course is given three days per week. Each girl pays about $22 per year to cover the recurrent costs of training. Evaluation consists of conferences every trimester between the students' fathers and the teachers.

This program is not terribly different in curriculum from many other women's training centers throughout Africa. It does, however, exemplify a small local effort that is financed by private sources.

b. Youth Centers for Education—Douala

There are two centers in Douala that conduct mass vocational education for youths. These centers were created by the Government in 1963 and are directed by the Service of Popular Education. Their goals are to give youths, including juvenile delinquents, prostitutes and general school-leavers, professional or job training and to develop their personalities and sense of responsibility.

The centers feature two categories of activities—compulsory activities including civics, first aid, home hygiene, manual work and sports and electives, of which students may choose from different specialities including masonry, carpentry, sewing, home economics, accounting, stenography, typing, automobile mechanics and electrical work. The centers also hold discussions on the problems of youth in society.

The centers have 15 rooms in which activities are carried out; there are 16 teachers who are either civil servants or who were hired directly by the centers. Some 850 young people attend one of the centers at Douala. They range in age from 10 to 28 with the majority being between 15 and 18 years old. Courses are open to anyone, male or female, who wishes to enroll. The center does not guarantee employment after training, but the administrators of the centers do contact businesses to try to find job openings.

Seventy-five of the center's former students are known to have found work. There are some former students who have not contacted the center to inform administrators of their employment, but center officials say that even if students are not immediately employed, there are important benefits in terms of changes in attitude and conduct. No one knows how long such attitude changes last after students leave the center, but at least the centers provide students with a possibility to keep active and, in some cases, employed.

2. EAST AFRICA: YMCA MULTI-PURPOSE PROGRAMS

a. Ethiopia

For more than 20 years, the YMCA in Ethiopia has been involved in non-formal education programs. In 1971, the YMCA operated 23 centers in 10 Ethiopian provinces and had more than 8,000 paid members. Fifty-five per cent of these members were under 20 years of age. Among the YMCA's principal programs are:

1. Future Citizens' Schools which enroll more than 1,000 underprivileged boys and girls annually.
2. Adult Literacy Classes which since 1953 have taught more than 10,000 adults, mainly using volunteer teachers and materials supplied by the Ministry of Education and Fine Arts.
3. Vocational Training and Handicraft Classes which have enrolled almost 18,000 persons.
4. Mass Education Programs which include clubs, seminars, a radio program, lectures, etc.

Finances

Of the total YMCA budget of some $250,000, nearly one third comes from a restaurant and residence the organization runs in Addis Ababa. Private contributions to the YMCA are, however, the program's largest revenue source. A plan to build a pilot vocational training center in Addis Ababa, with support from West German industrialists, calls for a significant share of recurrent expenses to be covered by the sale of materials produced at the center. Certain costs, such as the salaries of agricultural instructors, are borne by other outside agencies, including World Neighbors Inc. and Oxfam. The contribution of the YMCA to non-formal education in Ethiopia is probably unmatched by any other institution.

b. Uganda

The Uganda YMCA was founded in 1961 and has developed a wide variety of services and activities during the past decade. In 1962, a program for small shopkeepers was begun. The YMCA engaged in bulk buying so that small African retailers could buy goods at better prices and thus realize better profits. When other wholesalers moved in, the YMCA dropped the project so as not to compete with them.

The YMCA also ran a competition offering prizes to the retailers whose shops were judged the best in terms of fair prices, bookkeeping and inventory of stock. The YMCA involved the National Trading Corporation, a quasi-state agency affiliated with the Uganda Government, as a partner in the competition. As the contest became popular and successful, the National Trading Corporation assumed full responsibility, running the competition on a national basis. Again the YMCA disengaged from a successful program as it was taken over by some other institution. The YMCA is heavily involved in agricultural training for refugees in Uganda. This program, too, is being taken over by the Government.

The YMCA also runs evening classes for upgrading secretaries in Kampala. These classes feature simple bookkeeping, shorthand, and typing. In addition, the YMCA runs several informal literacy classes and a nursery school in a poor urban area. Parents have contributed about 60 cents per month to the nursery school.

Finances

Membership fees constitute the largest single YMCA revenue source. Membership in Uganda is about 2,500; the Government has put in a token contribution representing some 10 per cent of the YMCA's operating expenses. Precise per capita cost figures are difficult to ascertain because YMCA programs are informal, and attendance at programs is voluntary. The YMCA plans to construct a large vocational training center at Jinja, some 50 miles to the east of Kampala. Some $350,000 (mostly from West Germany) has already been raised for the building, which should be ready by early 1973.

Dan Tyler, the Secretary General who has worked in the Uganda YMCA since it was founded, has said that the YMCA would like to build a hotel and restaurant in Kampala to help cover recurrent costs. Apparently there has been difficulty raising money for this purpose.

3. ETHIOPIA

a. Confederation of Ethiopian Trade Unions (CETU)

The Confederation of Ethiopian Trade Unions conducts four kinds of farming.

1. Education for workers to make them good trade unionists. This training consists of seminars and conferences held on evenings and weekends. Workers are taught their legal rights and are instructed on collective bargaining. This aspect of training constitutes more than 60 per cent of CETU's efforts.

2. *A vocational training program. This program is supported by the* African-American Labor Center (based in New York City). The program uses a variety of institutions throughout the country. The Building College of Haile Selassie I University is used in the evenings; CETU pays for the use of the space and also for the instructors. Technical schools are also used in the evenings by CETU to train its own workers; the Government has enthusiastically provided space for these programs. Average per student cost in these training programs is about $20 per year; roughly $400 per month is spent on materials such as brick, wood, and cement. Over the long term, CETU hopes to increase the involvement of employers and government, but at present employers merely release their workers for an hour or so each day as their contribution.

3. Literacy work. CETU has admitted failure in this area.

4. Overseas study. The overseas program consists mostly of conferences and study tours designed to develop trade union leadership. Most of these tours are non-degree courses, but one or two involve degrees.

CETU's programs are by no means unique in Africa. Trade unions in a number of other countries are becoming increasingly involved in worker education. For instance, the Zambian Congress of Trade Unions (ZCTU) operates a program of seminars and courses in business administration, economics, contracts, and bargaining.

b. Ethiopian Child and Family Welfare Association

Unlike most African social welfare organizations, the Ethiopian Child and Family Welfare Association (ECFWA) was started by Africans themselves. Although the expenses of several volunteers are paid by Church World Service, the Association's staff remains entirely Ethiopian. Founded in 1965, in response to the drastic problem of destitute children living in the streets of Addis Ababa, ECFWA has gradually expanded from a small shelter offering a bed and one meal a day to 13 boys. The project now operates three hostels (two for boys and one for girls) and cares for about 175 children. All of the children attend Government schools, and the hostels provide a variety of training programs in commercial and vocational skills. Because of the difficulty of training students for wage employment, the Association has increasingly tried to involve the children in selling handcrafts and newspapers. It is hoped that such experience will enable students more easily to gain self-employment after they leave the hostels.

Like all similar organizations, the ECFWA is the work of a small group of dedicated volunteers who have managed to keep recurrent costs down to $10 per child per month. Although it is unlikely that this sort of commitment can be widely replicated, it is significant that such a program can be maintained primarily by local initiative.

c. Ethiopian University Service

The Ethiopian University Service (EUS) is a one-year rural service program that is part of the degree requirement for students at Haile Selassie I University. Started in 1964, as a result of initiatives by students and faculty to relate the University more closely to the needs of the primarily rural country, EUS has become a well-accepted, viable program. Much of the following analysis is based on a report by Andrew and Diana Quarmby that was done for the International Secretariat for Volunteer Service in July, 1969. (The International Secretariat is a coordinating agency for various programs such as the British, Danish and other volunteer services.) Although the report is more than two years old, much of the data remains valid.

Purpose

As defined in the University statute establishing EUS, students will work:

1. To establish contact and render service to rural communities.
2. To use any capacity involving special skills developed by University training.
3. To aid national welfare by contributing to local communities.
4. To improve student understanding of local community needs, problems and development.

Students work for one academic year and are provided with a living allowance. Since EUS was established, the service goal has been overridden by the recognition that the program's primary contribution will be to the students themselves and to the University. As defined by Ato Mesfin Ambatchew, EUS Assistant Director, the program's academic and pedagogical aim is "to test the relevancy of University education" by applying the theory learned in classrooms to actual field situations, and to break down the compartmentalization of knowledge as presented in various courses. This growing emphasis on EUS's academic value has brought greater efforts to prepare students for their year of service and to post students in jobs closely related to their major field of study.

Administration

EUS is run by a secretariat on the University campus; the program's director is Ato Seyoum Selassie, Dean of the School of Social Work. All students, with the exception of those in the Departments of Home Economics and in the College of Public Health (who do practical work anyway), must spend a year in EUS. Exemptions are granted to persons who have already spent six or more years working in the field or who can't participate because of poor health. Students receive no academic credit for the service year, although the program's orientation is a one-credit, one-semester course. This course includes such topics as the dynamics of change and development, the peasant and development, education and development, government structure at the national and *local level in Ethiopia, cultural and social barriers to* change, etc.

Supervision of the program is expensive and difficult because of the problems involved in communicating with students in remote areas. Three separate supervisory reports are filed for each student—one by the EUS staff, another by the student's academic adviser, and a third by the student's employer. Students themselves fill out a series of reports evaluating their experience and relating it to their academic work. A student's university transcript must show satisfactory completion of the service year, including evaluative reports by the supervisors. In some cases, students are required to repeat the year. To facilitate the supervisory and evaluative process, the EUS staff has prepared a manual for students and employers.

Jobs and Salary Allowance

Students receive a basic allowance of $70 per month, paid by the employer. This is equivalent to about one-half of the salary rate for persons of their educational background. Employers also cover transportation costs to and from an assignment. In some instances, an additional allowance of up to 30 per cent for hardship conditions is given; married students can apply for an additional $10 per month for their wives and $5 for each child. EUS also provides each student with basic furnishings, including a table, a chair, a folding bed, kitchen equipment, first aid equipment, and, in some cases, lamps and water filters. The University provides the students with a comprehensive health insurance plan.

EUS tries to place students according to the priorities identified by their academic departments. Aside from medical reasons or in cases where students with families require certain accommodations, placements are made by drawing lots. Ninety-five per cent of the assignments are outside of Addis Ababa. Although 80 per cent of the students were involved in school teaching in the first years of the project, this proportion has fallen to 50 per cent as a larger number of other agencies have expanded student hiring. In 1971, there were 42 agencies (both public and private) involved in the program. Although the number of students has grown to more than 500 per year, the demand for them (at the fairly attractive rate of $70 per month) has remained stable.

Finance

According to estimates contained in the Quarmby Report, the minimum annual average cost per EUS student is $900, of which only $93 is borne by the University. The University has, however, been carrying the additional cost of medical expenses, as well as the cost of time spent by faculty members in supervision and consultation. The project's low unit cost has been achieved because employers have financed student living allowances and because EUS has a small administrative staff. In view of the project's major difficulties in communication and supervision, it may be that administrative costs should be increased. Thus far, the University has financed its share of the program out of its own budget, except for a small grant from The Ford Foundation during 1968–1969 and the provision by Ford of an adviser for two years to assist in the development of the program.

Evaluation

David and Frances Korten have published two brief studies on EUS.* The Kortens' research was primarily based on questionnaires administered to the program's first group of students in 1964–65 and on field visits at that time. The Kortens concluded that the students were overwhelmingly supportive of EUS, despite early resentment and active opposition because the program was compulsory. Both the Kortens and the Quarmbys have cited the importance of students being placed in jobs where they were needed, so that they felt productive.

The Quarmbys identified EUS's major achievements. They noted that the project made a contribution to the education of the university students involved. They also noted that EUS contributed to secondary education throughout Ethiopia. Without EUS the expansion of the secondary-school system would have been slowed and the proportion of foreign teachers needed would have been greater. The Quarmbys also said that the program contributed to Ethiopia's general development. But perhaps the greatest EUS achievement the Quarmbys cited was that the program served to demonstrate to other countries that a student-service project can be feasible and valuable.

Conclusion

In analyzing the question of introducing a student-service program elsewhere, the Quarmbys focused primarily on such administrative matters as involvement of the students in initial planning, so that there would be less resentment of the program's compulsory aspect. The primary consideration in deciding whether a student-service program can be developed elsewhere, however, is the question of who bears the costs. In Ethiopia the demand for students at this level has been strong enough to avoid problems in placing students in jobs related to their own studies. In many African countries, however, the modern sector is already saturated with university-level personnel.

d. Ethiopian Women's Welfare Association—Addis Ababa

EWWA is composed of women's clubs that have been conducting a variety of activities for more than 20 years. In its early days, much of the project's money came from USAID and its predecessor agencies. Later there was a period when some funds came through matching grants from the Ministry of Education.

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* In *Comparative Education Review* of October, 1966 and October, 1969.

Over the last few years, more of the local contribution to EWWA has come from Haile Selassie I University, primarily for teacher salaries. This, however, is a declining contribution. The Association has launched a building project that will cost more than $600,000, but will generate income through rental of space not used by the Association.

The primary programs of EWWA fall into four categories: (1) adult education, which involves about 750 women per year at a variety of centers; (2) clinics that offer maternal and child care and various medical services to some 100,000 persons per year; (3) four elementary schools, which in 1971 enrolled 2,625 children;* and (4) an orphanage that takes care of 110 children in Addis Ababa.

No fees are charged for any of these programs and costs must be borne out of contributions and external aid. The program's yearly budget is about $200,000. Although the Ministry of Education will probably continue to pay the salaries of teachers in the elementary schools, it is hoped that the rest of the budget will eventually be supported out of rent from the proposed building.

e. Radio Voice of the Gospel—Addis Ababa

This project conducts simultaneous radio broadcasts in different languages. All told, the project broadcasts a total of 27 hours of programming each day over various frequencies; this includes seven hours of medium-wave transmission in Arabic, English and French. The total population in the area reached by the station is in excess of one billion persons. Programs are produced by 14 studios that send tapes to Addis Ababa. The owner of Radio Voice of the Gospel is the Lutheran World Federation, which provides about half of the operating budget; the remaining funds come from the World Council of Churches. Thirty per cent of the programming is evangelical and 70 per cent is informational, covering a wide assortment of topics including news, health, agriculture, literacy, fashions, and sports. The program's total capital investment is about $3 million. The facilities cover 300 acres and the annual budget is close to $800,000. Some 200 persons are employed by Radio Voice of the Gospel in Addis Ababa, and another 200 are employed in the 14 other African studios. The news is broadcast in eight languages: Malagasy, Swahili, Amharic, Hausa, Fulani, French, English and Arabic.

Unfortunately, Radio Voice of the Gospel cannot measure its impact since there is relatively little feedback from listeners and the size of the station's audience is difficult to determine. But the magnitude of the project and the professional standards with which programs are developed suggest a favorable cost-benefit ratio.

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* These elementary schools were started in response to mothers' demands for a baby-sitting service so that they could attend programs during the day. The Ministry of Education pays the salaries of the teachers at these schools.

4. GHANA

a. National Family Planning Program

In March, 1969 the Government of Ghana adopted a national policy for population planning. A National Family Planning Council was established; its operating arm was called the National Family Planning Program (NFPP). NFPP works through several Government ministries and calls upon private organizations to provide program-related services or to perform educational and informational functions.

NFPP has two operational divisions—the service division, responsible for funding and assisting in the administration of family planning services, and the information and education division, primarily responsible for providing information to couples interested in birth control. The information division also keeps the Government and the public informed about the importance of family planning in economic development and about the goals and achievements of the NFPP.

Training Component

Within the information and education division, NFPP operates a training program for various types of personnel. Courses are intended to provide training in medical and clinical practice and to develop a broadly based program that will extend family-planning services to the greatest possible number of Ghanaian families.

NFPP's five-track training program was initiated with the following issues in mind:

1. To make the fullest use of existing institutions, facilities and personnel;
2. To make the courses as practical as possible, emphasizing clinical and field experience rather than didactic teaching;
3. To prepare staff for specific work on the basis of detailed job descriptions;
4. To ensure participation of every person involved in family-planning services.

Track 1 of the program is designed to provide physicians with three to five days of training in the supervision of the family-planning work of nurses and auxiliaries, in methods of contraception, in the contraindications and side effects of contraceptives, in IUD insertion and removal, and in the treatment of side effects.

Track 2 offers three weeks of training to senior nurse-midwives with three to five years' experience. Nurses are expected to provide family-planning services under medical supervision. They are taught to recruit and instruct patients and to teach women how to insert IUDs. Upon completion of the course, nurses are certified as family-planning nurses.

In Track 3, midwives and nurses are trained to become family-planning auxiliaries. Auxiliaries are qualified to operate family-planning clinics under physicians' supervision and to provide all information and services, except the dispensing of IUDs. Their training lasts three weeks.

Track 4 provides a one-week introduction in family planning to nurses, midwives, health-center superintendents and other personnel engaged in maternal and child health work. Trainees are expected to provide family-planning information as part of their ongoing duties.

Track 5 prepares rural development workers, social welfare workers, and civic education workers to expand their activities to include family planning, patient recruitment, field-work methods and patient follow-up and resupply. The main emphasis of this course is on the motivational aspects of family planning.

In addition to these preservice courses for medical, paramedical and other personnel, NFPP also provides refresher and in-service programs. Individualized and programmed instructional materials are utilized in both the introductory and refresher courses. Each course draws its lectures and instructors from several sources. All courses except those in Track 2 are sometimes held at the regional level, as well as in Accra. (Track 2 courses require the use of facilities in Accra.)

The following statistics give an idea of the program's potential impact. As of October, 1970, some 349 of Ghana's 550 physicians were serving under the Ministry of Health. Of the 3,500 nurses employed by this Ministry, 550 were trained midwives. In addition, there were 800 registered private midwives in the country.

The five-track training program has much to offer either as a model for family-planning programs in other countries, or as a training ground for limited numbers of English-speaking personnel from other African countries. Because there will be a severe shortage of places for Ghanaian personnel during the next few years, the program's role as a model for other countries seems the most promising possibility.

b. National Women's Vocational Training Center—Accra

Objectives

The National Women's Vocational Training Center is government run and is manned by staff from the Department of Social Welfare and Rural Development.

The center, started in 1954 as a home extension program, moved to Median, near Accra, in 1963 and became a training center for newly appointed community development and welfare assistants. At first, the center offered refresher courses in home economics to female assistants in the department of social welfare and community development. Gradually it broadened its focus to include training for unemployed young women who had drifted into the towns. Courses at the center can now be classified into three main groups:

1. Departmental courses for staff. These include:
    a. Six months' introductory courses for newly appointed community development, welfare and rehabilitation assistants.
    b. Orientation or refresher courses for field officers.
    c. Refresher and in-service training for tutors at regional women's training institutes.
    d. Senior staff conferences.
2. Ad-hoc instruction for the general public, including courses for housewives, husbands and students from schools without home science facilities.
3. A two-year course in basic home economics for women from 15 to 30 years old. This course includes dressmaking, tailoring, cookery, home management, food preparation, child care and family planning.

In addition, the center allows both government and non-government agencies to use center facilities to run their own courses.

Plant and Equipment

The center has a dormitory with 14 rooms, an administration office, three classrooms and a workshop. A new dormitory is under construction. According to plans, the new facility will contain 36 single rooms for adults. Plans also call for construction of additional staff quarters for senior and junior staff and for other workers. Other facilities planned are an assembly hall and a school farm. A request has also been made for funds to construct an amphitheater.

Staff

At present three qualified staffers run the center with assistance from four experienced girls. The principal took a two-year diploma course in social administration at the University of Ghana, followed by a year's post-graduate study in home economics in Britain. One senior staff member holds a bachelor's degree in home science; the third staffer holds a diploma in social administration and also did post-graduate work in home economics at the University of London.

In addition to these staffers, the program has a clerical assistant and three craftsmen (a tailor, a dressmaker, and a specialist in needlework). There is also an agricultural assistant, a matron, three laborers, one messenger, one storekeeper, three custodians, and a driver. Present staff is not altogether satisfactory, and requests for more qualified people with home science backgrounds have been made. More qualified craftsmen are also needed. The staff is small so there has been reliance on part-time instructors. There is also a plan to hire an executive officer to take charge of the center's accounts.

Financing

The Ghanaian Government has been mainly responsible for financing the program. UNICEF has become interested in the center's program and has recently agreed to help, particularly in providing equipment and subsidizing certain recurrent costs.

Trainees pay $2 a month for the two-year course. Those enrolled in introductory or refresher courses pay $1.70 per day for food. Trainees attending UNICEF-sponsored courses pay only 10 cents a day, with UNICEF paying the difference.

Size

Forty students are admitted to the two-year course. Introductory and refresher courses usually accommodate 30 to 40 trainees. About 30 women and young girls from rural areas are also admitted to the program. It is envisaged that when the new dormitory is completed, regular intake for various courses will rise to 60. At present, the main constraint on the number of students admitted is lack of facilities.

Duration of Courses

Introductory courses last up to six months; refresher courses last between four and eight months. Courses for rural women last only 14 days because these women do not wish to be separated from their husbands for long periods.

Incentives and Recruitment

It has been easy to attract trainees. The problem has been one of selecting a few trainees from the flood of applicants each year. When the two-year program was begun, it was only advertised once in the local papers. The response to the ad was described by staff as overwhelming.

There have been no withdrawals from any of the center's courses. Candidates are evaluated by means of examinations. Successful trainees receive a home management certificate in one or more of the center's specialty areas. Incentives for superior performance include badges and other awards. Since its inception, only three girls have failed to get a certificate.

Reasons for the center's success include the practical nature of the course —subject matters clearly linked to the functions that the women will perform —and the fact that fees are low.

Employment

Employment opportunities for those who complete the program are many. Departmental staff are appointed to posts before they receive any training.

Housewives who attend the courses become better wives and mothers and more useful citizens. The two-year course opens the way for trainees in such important fields as small-scale industry, factory work, home help, baking, and sewing.

Although some trainees are employed by government and private institutions, the majority are self-employed. Two of the center's graduates are employed as assistants in the home science department of the University of Ghana. Another works with the Ghana National Trading Corporation's Home Management Department. There are a few graduates employed by catering firms. The center usually corresponds with various businesses to find job openings.

Follow-up

No follow-up system has been established, but departmental field supervisors include in their general reports notes on the progress of leavers in their districts or regions. Such reports have so far been encouraging.

Aid Sources

The center receives financial and other assistance from UNICEF. The Christian Council of Ghana, an interdenominational service organization, also assists the center in obtaining various supplies, including food for demonstration purposes and used clothing for sewing and needlework. The center needs more government assistance to upgrade and augment staff, to purchase equipment, and to expand facilities. Foreign agencies can assist by providing equipment, scholarships to train staff and funds to cover recurrent costs.

Impact

The center's program fits in well with the Government's rural development policy. Although the number of students trained is small, the quality of the training is widely acknowledged as good.

5. IVORY COAST

Institut Africain pour le Développement Economique et Social (INADES)

Objectives

The African Institute for Economic and Social Development, centered in Abidjan, Ivory Coast, aims to help form a base for economic and social development by changing the attitudes and practices of large numbers of African farmers, civil servants, middle-level managers, and women. Among other things, the project attempts to break down those traditional notions that offer impediments to development. One purpose of the women's training, for example, is to show that better nutritional practices are as much determinants of one's health and well-being as the will of the gods.

Methods

Run by a group of French Jesuits, the Institute has developed its methods during the nine years of its existence. Correspondence courses were chosen as a means of instruction because they allow maximum outreach, even in isolated areas, at a relatively low cost. Correspondence courses also allow a trainee to work at his own speed. The Institute designed booklets to be used for farmer training (*Agri-Service-Afrique*), for manager training (*Cadres-Service-Afrique*) and for women's training (*Service Féminin*).

Farmer Training

The *Agri-Service-Afrique* is the Institute division with the most students. It offers two courses—farmer apprenticeship, a two-year course in agricultural techniques, and agricultural improvement, a two-year course in the marketing and economic aspects of agriculture. The booklets used for these courses were written by the Institute staff and consist of simple French sentences. Only about 600 words are used, and each booklet contains carefully explained illustrations. The booklets explain the reasons why certain agricultural techniques are recommended. The first-year booklets deal with basic notions of agriculture and animal husbandry; the second-year booklets deal with specific types of plants or animals raised by farmers in a particular region.

The two-year agricultural improvement course deals with management, accounting, credit, cooperation, commercialization of produce, and rural economics. Exam questions accompany each booklet; these are corrected primarily at the Institute in Abidjan. Students may register for the course individually or in groups. Groups are usually headed by a local instructor or monitor who has been chosen because of some previous agricultural education or, in regions where the language of the booklets is not that of the people, on the basis of his ability to translate the books. Often groups of students are organized by a regional governor or by a development organization. In the case of groups, INADES representatives offer orientation at the beginning of the course, give demonstrations related to the booklet lessons, and discuss practical applications of the lessons. These visits by INADES representatives also provide an opportunity to evaluate the effect of the course.

Coordination and Follow-up

In some countries, notably Cameroon and Ethiopia, closer contact between trainee and INADES administrators has been assured by establishment of country relays. Such a system consists of INADES representatives or affiliates who contact interested government officials or development-group representatives. The INADES representatives also study the specific agricultural problems of a country, write appropriate booklets, and, if necessary, translate booklets into the regional language. Because their study enables them to understand the agricultural situation in a country, these representatives also correct the exams of trainees in that area, as well as offer advice and give demonstrations. In Cameroon the relay system consists of five workers, two of whom are agricultural engineers. The six-man Ethiopian team includes a rural development expert, an Amharic professor, an agronomist, and a social economist. Relays are also in the process of being established in Zaïre, Burundi, Rwanda, and Togo-Dahomey.

In 1970, FAO translated the booklets into English so that they could be used in Anglophone countries. Additional translations are being done in Amharic, Kirundi, Kiswahili, Dagara, Mooré, Boré, Kinyarwanda and Bariba. Translations are even being made by the Commission for Human Promotion in Brazil and the Jajasan Kanisins in Indonesia so that the booklets can be used in those two countries.

Number of Students

The number of students enrolled in the *Agri-Service-Afrique* has grown from 1,645 in 1969 to 2,456 in 1970. Countries with registered students are Burundi, Cameroon, Central African Republic, Congo-Brazzaville, Ivory Coast, Zaïre, Dahomey, Gabon, Upper Volta, Mali, Niger, Rwanda, Senegal, Chad, Togo, Ethiopia and Madagascar. The highest concentration of students is in Cameroon. Certificates for completion of the agricultural apprenticeship increased from 353 in 1969 to 425 in 1970. Certificates for completion of the agricultural improvement course increased from zero in 1969 to 34 in 1970. The low number of certificates awarded in relation to the number of trainees registered is explained by the fact that students work at their own rate, that the course takes at least two years to complete (lower enrollment figures prior to 1969 are reflected in current certificate awards), and that slow mail service impedes the instructional process. The drop-out rate has not yet been calculated (extensive follow-up investigations are being made), but it is believed that the program has relatively few drop-outs in comparison to most correspondence courses. Ethiopia has calculated that the drop-out rate in the first two years of the program's existence was close to 35 per cent. This rate is explained by the fact that faith in the course had not yet been established. In addition, some students quit when they realize that the course certificates would not enable them to obtain jobs in the city. The increased crop production among those who have taken the course is noticed by the less-trusting trainees and this tends to lower the program's drop-out rate.

Costs and External Support

Agri-Service-Afrique courses cost $50 per student per year. This includes the cost of postage, correction of exercises, advice given by agronomists, the traveling expenses of INADES representatives, and the organization of seminars. Students themselves are not asked to pay this amount, but are charged only a token fee ranging from 50 cents to $20, depending on the country. Thus, scholarships are needed to cover costs. In 1970, about 1,200 scholarships were granted by such groups as the European Community Commission, the French Secretariat for Foreign Affairs, MISEREOR and Oxfam. More scholarship aid is being sought by the Institute. Without such aid the Institute will have difficulty expanding its services to the many countries currently requesting the courses.

Other Activities

Before booklets are written and adapted for use in a particular country, research is conducted on the agricultural situation in that country and on the social, economic and anthropological conditions that may affect the way in which the booklets should be presented. Such efforts help the Institute to change attitudes without violating traditions. To support this research, an extensive library has been developed. The library contains 21,000 books and 400 periodicals dealing with Africa, social science, psychology, history, geography, religion, anthropology and agriculture. The Institute has opened the library to the public.

Other courses given by the Institute include the *Cadres-Service-Afrique* which offers instruction in economics, sociology, planning and development to some 600 middle-level management personnel and government officials. The Institute's women's training courses aim at teaching rural development workers, nurses and housewives better hygiene, nutrition and housekeeping practices. The Institute also offers courses in management on behalf of the Paris-based Center of Improvement for Heads of Enterprises and High-Level Management.

General Comments and Evaluation

The Institute offers a low-cost method of teaching large numbers of poorly educated farmers. Because of its pan African nature the Institute can avoid political issues; it deals with government officials only when they request that a particular course be given in their country or when they can be used to help locate students or to form student groups. The simplicity of booklets used in the courses is significant; these booklets explain to the farmer why he should use certain techniques, an important factor in achieving long-term changes in attitudes. The success of the courses is enhanced by the fact that the techniques taught do not require machinery that is unavailable to most farmers. The considerable impact of the courses is substantiated by increased crop yields reported by many of those who have completed the course.

Countries interested in the project, rather than attempting to duplicate it, should seek out farmers and development groups willing to help coordinate the courses in their own countries. Interested African countries or development groups might also seek scholarship funds needed to start such courses.

6. KENYA

a. Kenya National Youth Service

Background

The Kenya National Youth Service (KNYS) was established in 1964 to absorb large numbers of youth who were former Mau Mau freedom fighters and other urban unemployed from the youth wings of various political parties. As in other countries that have had youth service programs, KNYS has been subjected to political pressures while trying to offer vocational training. From the program's start, it was recognized that the recurrent costs of offering viable training would be sufficiently high so that it would be desirable for participants to work on development projects in order to repay part of the national investment in the project. The program is militaristic in the sense that men and women (the women's wing was added in 1966) wear military-style uniforms, are disciplined and drilled in military fashion, go through basic training, and are given military rank during their service. Yet the primary function of the service is to train young people for employment, and when the servicemen parade they carry shovels, not guns.

The National Youth Service has attracted considerable attention and substantial outside aid. A report on the National Youth Service was written for the International Secretariat for Voluntary Service in 1969 by Diana and Andrew Quarmby. Much of the following analysis is taken directly from the Quarmbys' report.

Recruitment and Selection

The primary criteria for entrance to the service are age (16 to 30) and physical fitness. The program, despite the rather broad age limits, concentrates on recruiting youth between 18 to 20 years old. After an initial period in which members of Parliament nominated servicemen from their districts, recruitment and preliminary selection has been done through advertisements and local screening committees run by district commissioners. After preliminary screening, KNYS staff come to each district for final selection. District level participation ensures that the program involves an equitable ethnic and geographic distribution. Recruitment has thus far been roughly proportional to the population of Kenya's major ethnic groups, except for Europeans and Asians. The service is open to all citizens of Kenya, but because of their generally higher socio-economic level, no Europeans or Asians have applied.

Motivation

The fact that applicants have consistently outnumbered available places indicates that the youth service represents a highly desirable alternative for unemployed young people. Although there was some difficulty in placing the program's first graduates, this situation improved when the service changed from one year to two years' average length of training. Although the service makes no promises about post-service employment, it has been extremely successful in placing trainees. In addition to their uniforms, equipment, accommodations and food, servicemen receive $2.80 per month. Almost half of this sum is put into a compulsory saving program. Ex-servicemen receive these savings in a lump sum upon completion of their service.

Despite the low pay and rigorous discipline, the program's retention rate is high; only 10 per cent of the trainees quit the service. Because the service is voluntary, desertion is not punished. Servicemen do, however, forfeit their compulsory savings by quitting before their two years are up. Because servicemen serve as ushers, parking attendants, and general helpers at all major public ceremonies, they have acquired a great deal of favorable publicity. This publicity also contributes to the program's steady recruitment rate and high motivation. The Government and the news media also give KNYS considerable publicity.

Training

KNYS training can be divided into three categories:

1. General Education is offered in English, math, science, civics, history and geography. This training is given to all recruits in amounts that depend on the level of education trainees have achieved prior to entering the service. Most of the general education takes place at a central camp at Gilgil, some 72 miles northwest of Nairobi. No educational certificate is given for this training. Trainees wishing to take the CPE (primary school completion) examination at the end of their service must do so at their own expense.
2. Basic training is a two-month program including physical education, health, hygiene, and care of personal equipment. After the two-month basic training course, trainees generally receive three months of general education. Students then take three months of field work, usually in bush-clearing or agriculture. This is usually followed by three more months of general education.
3. Vocational training is the third type of training offered. Vocational instruction takes place at a former British Naval Base in Mombasa. The VTU (vocational training unit) course lasts three months and covers four main trades leading to the grade three government trade test (pre-apprenticeship standard).* The four fields covered are masonry, carpentry, motor maintenance and repair, and electrical installation and maintenance. Every three months 90 trainees are admitted to the program; plans are under way to enlarge this number considerably. Assistance in running the VTU has been given through

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* The grade three test qualifies students for semi-skilled employment.

> a number of external agencies, particularly the Organization for Rehabilitation through Training (ORT) under contract with USAID. (ORT is an international agency specializing in vocational training.)

Other types of training given include secretarial work, accountancy, storekeeping, etc.; many women specialize in dressmaking, office work, and driving automobiles. After 18 months in the program, servicemen and women are allowed to seek employment, although most finish their two years of service and many reenlist for further training if they have difficulty locating employment. Such flexibility is highly desirable. One of the most useful aspects of the program is on-the-job training in road building and heavy construction work. The youth service contributes significantly to Kenya's development through work on major roads, dams, and air fields. Trainees who work on these projects also find it relatively easy to obtain employment afterwards.

Job Placement

According to the Quarmby report, ex-servicemen and women were employed as clerks, drivers, storemen, secretaries, game scouts, policemen, prison wardens, telephone operators, office messengers, health assistants, agricultural demonstrators, and farmers. A survey conducted several years ago indicated that more than 95 per cent of employers were satisfied with the performance of their Youth Service employees. The director of the Youth Service emphasizes that the primary reason for the program's successful placement of trainees and for the subsequent success of trainees on the job is not the specific technical skills taught to trainees but their reliability. The director attributes this reliability to the discipline and high morale of the youth service.

Finance

Local recurrent costs per trainee of about $350 per year do not include the considerable capital costs of equipment, machinery and facilities or the considerable external aid the program receives in the form of technical assistance and equipment. A cost-benefit analysis of the KNYS was done for the ILO by E. Costa several years ago. This report concluded that on the basis of returns to individual trainees (not counting the program's contribution to national development), the Youth Service has been worth the investment.*

The impact of the Kenya National Youth Service has been significant. The program currently turns out 2,000 trainees a year with plans to expand this number over the next few years. In a country with serious youth unemployment problems, it is worth the expenditure of $300 to $500 per year to find jobs for this critical group. But the great need for external financing and technical assistance in setting up such a program raises serious questions as to whether other countries could successfully operate such a project.

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* E. Costa. "A Tentative Assessment of Costs and Benefits of the Kenya National Youth Service" Geneva. I.L.O. 1969.

I. Per-student Average Cost of KNYS (Excluding Work Projects)

	Kenyan Costs	Foreign Aid
Capital costs:		
Buildings	$ 5.04	—
Equipment	32.90	$101.50
Operating expenses:		
Variable costs	184.10	—
Fixed costs	220.92	189.14
Other administrative costs:	National Value	—
Opportunity costs	5.60	—
	$448.56	
Deduction of former consumption of youths	63.84	—
	$384.72	$290.64
	Total: $675.36	

II. Benefits

Production of goods and services within KNYS:	27.02
Benefits from vocational training:	746.75
Total benefits from work projects:	35.42
Total:	$809.19

b. Radio and Correspondence Courses in Kenya

In April, 1967, the Correspondence Course Unit (CCU) began operations at the University College, Nairobi (now the University of Nairobi). Courses were directed at preparing primary-school teachers and other adults for the Kenya Junior Secondary Examination (KJSE). This examination, usually taken after two years of secondary education, is necessary for a teacher's promotion and a consequent raise in salary.

The CCU instruction involves correspondence study guides, textbooks, and other written materials, supplementary radio broadcasts, and the marking of students' lessons by qualified secondary-school teachers.

At the end of 1970, there were nearly 2,000 students taking courses under the CCU program. In 1968, 49 per cent of CCU candidates passed the KJSE, as compared with 24 per cent for full-time secondary-school students and 11 per cent for self-prepared candidates.

Since 1969, the CCU has run a program for primary-school teachers. The first phase of this program involves residential courses in teaching methods conducted during school holidays. Radio lectures are used to supplement these courses. In the second phase, teachers take courses in three subjects (at the first-year secondary level). An examination at the end of two years provides the standard for possible promotion to the grade of P3.*

Surveys have shown that a large audience listens to radio in Kenya every day. Many people in the rural areas listen to CCU broadcasts even though they are not enrolled in courses. The program's directors hope to expand its coverage to include vocational and professional courses, adult literacy programs, and courses for field staff within the cooperative movement. Plans also call for introduction of correspondence courses leading to degrees from the University of Nairobi. There is a vital need for research, however, to provide more information about radio listeners, their study habits, their problems and their aspirations. Means must also be devised to conduct follow-up work on students, particularly primary-school teachers who have been upgraded through CCU courses.

7. MOROCCO

Large-Scale Multi-Purpose Programs

1. Food-for-Work Program

Morocco's Food-for-Work Program sponsors more than 1,800 projects each year in a massive effort to put unemployed people to work on development projects. The make-work attributes of this program make it similar to the Works Progress Administration (WPA), which operated in the United States during the 1930's. Although it does not generate any on-going jobs, Food-for-Work in 1969 provided the equivalent of full-time employment for 700,000 people. It concentrates on rural areas and on such fields as soil conservation, irrigation and reforestation.

2. Foyers Féminins (Women's Centers)

These centers provide training in home economics, child care and adult literacy for more than 60,000 girls and women. Most of the 160 centers are located in rural areas. For many participants who live in traditional settings, the centers represent their only contact with modern concepts and practices. UNICEF and the International Christian Services for Peace (EIRENE) provide financial support for the program.

3. Centre de Jeunes Patrons (Young Executives' Association)

This organization's principal objective is the improvement of high-level business management in Morocco. The Association is linked with the Council for International Progress in Management (CIPM) and is similar to the Management Training and Advisory Centers in East Africa. More than 600 executives attend Association seminars every year.

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* In Kenya, Grade P3 is the lowest level of teacher training. Teachers referred to here have received no training.

8. NIGERIA

a. Citizenship and Leadership Training Center—Lagos

History and Background

The Citizenship and Leadership Training Center, now located in Lagos, was originally patterned after the British Outward-Bound Movement.* Founded in 1951, the center was first located at "Man O' War Bay" in West Cameroon. (At that time West Cameroon was part of the Federation of Nigeria and the Cameroons.) Alec Dickson, C.B.E. served as principal from the center's inception to 1954. On October 1, 1960, the center became a corporation under a new principal, R. E. Snowsell, Chief Commissioner of Scouts in Nigeria. When West Cameroon opted to join the Cameroon Republic, in September, 1961, the center was moved to a temporary site at Kurra Falls in the Benue Plateau Province in the former northern region of Nigeria. In 1966, the center moved to Yakubu Gowon Street in Lagos, its permanent headquarters.

A sea school was established as a unit of the center in 1964. In November, 1968, another unit that offered a program similar to that of the sea school was moved from Kurra Falls to Shere Hills near Jos, Benue Plateau State. A touring unit was started by the center in 1964.

The sea school, which teaches sailing, swimming and navigation, is located on the eastern end of an island, one mile from Apapa. The island commands a central position between Porto-Novo and Badagry Creeks. The basic courses and training are the same at the sea school and at the Shere Hills unit.

The Shere Hills School is situated on top of a plateau 4,250 feet above sea level, some five miles from Jos. This rugged and mountainous countryside provides an ideal training ground for the program which stresses initiative, ingenuity and self-reliance.

The touring unit, which was discontinued during the Civil War (1967-70), is the most versatile unit of CALTC. The program's area of operation ranges from the dry heat of the near desert to the steaming rain forests and swamps of the coast. The touring team is a mobile group of instructors.

Courses

The two schools offer identical courses and basic training programs. Courses consist of junior courses for students in secondary, military, craft and technical schools. Trainees in these short courses range from 15 to 21 years old. Senior courses are offered to men in an age range of 21 to 35 years. Executive courses are usually two weeks in length and are designed to strengthen participants' sense of responsibility, initiative and self-reliance. The executive courses are specially organized for managers of industries or companies, police officers and other public officials. Women's courses are based on the same basic objectives as the men's courses.

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* The Outward-Bound Movement is a British movement that emphasizes training for endurance and self-reliance in wilderness conditions.

Basic Training

Although courses offer a variety of training methods, basic training falls into five main categories.

1. Physical Activities. Climbing, swimming, canoeing, athletics, expeditions and obstacle courses.
2. Mental Activities. Emergency drills, debates, group discussions, lectures, diary writing, educational visits, etc.
3. Technical Activities. First aid, mapping and compass work, lifesaving, boat handling, fire fighting, care of tools, engine (boat) maintenance.
4. Community Development Activities. Assisting voluntary organizations in social services and helping local communities to plan, organize, and carry out community development projects, e.g., roads, bridges, schools, etc.
5. Religious Activities. Active participation in the organization and running of prayer services, visits to churches or mosques.

Objectives

The motto of the center is: "Build The Man, Build The Community." The center's objectives are:

1. To develop participants' capabilities and to rejuvenate their dormant potentialities by training them to overcome challenges that require moral, physical and mental exertion;
2. To build up participants' self-confidence, physical fitness, self-discipline and their capacity to overcome difficulties with courage and determination;
3. To encourage community cooperation and selfless leadership for the good of the nation.

Staff, Plant and Equipment

Both the units at Shere Hills and Apapa are in the process of development. New buildings to accommodate students and staff have been completed, and others are under construction. The two dormitories at the sea school were donated by the Nigerian Youth Trust. Assistance has also been received from some commercial firms.

The center has a principal and a vice-principal. Three senior officers are in charge of the center's two units and women's training. All staff members are paid by the Federal Ministry of Education. Guest lecturers are drawn from government ministries, colleges and universities. These lecturers are paid on a part-time basis; some volunteer their services.

Candidates are loaned special clothing and equipment, life-boats, canoes, and life jackets for the obstacle course.

Sponsorship and Funding

The center is sponsored by the Federal Government of Nigeria and is run by a management committee which is responsible to the Federal Ministry of Education. This committee is composed of members representing all the governments of the Federation, commercial interests, voluntary organizations, prisons and the armed forces. The cost of training at Shere Hills and the sea school is borne by the Federal Government. Only candidates sponsored by commercial firms and candidates accepted from countries outside Nigeria are required to pay fees. These trainees are charged $84 per course.

Recruitment and Target Population

Participants attending the courses range in age from 15 to 36. Admissions are made according to state quotas. This ensures diversity in the composition of students in each course and keeps the program in line with national needs. Efforts are made to ensure that both the rural and urban populace are represented.

Between 1951 and 1971, the center trained more than 11,000 students. Because most of the candidates attending the course are sponsored by their employers, there is no wastage.

Staff and students are covered by insurance policies against accident and third-party liability while participating in the course.

Although courses do not lead directly to promotion in a candidate's employment, most former participants expressed the view that after the course their willingness to assume responsibility increased.

Follow-up

The center prepares a comprehensive report on the performance of each candidate after the course. It includes an overall assessment that a candidate's sponsor discusses with him. Part of the report is confidential and is seen only by the sponsor. A follow-up form is sent to the sponsor six months after a candidate has left the center.

Students who have attended Citizenship and Leadership Center courses form "Old Students Associations." Public service is an essential part of the activities of each association or club. Center staff members visit the clubs to give advice and to assist in organizing short courses.

b. St. Brigid's Social Center—Ibadan

Historical Background and Objectives

By 1963, it was found that many school-leavers, especially those who had left the free primary schools that were begun in the former western region of Nigeria in 1955, were not furthering their education in secondary or technical schools.

The center runs three courses. The first is designed to help women meet home and family responsibilities. The subjects taught are cooking, child welfare, dressmaking, crafts, literacy, and laundry. The second course is designed to prepare school-leavers for employment opportunities in offices. Subjects taught are typing, shorthand, and office management. The third course is designed to train participants, mostly adults, for literacy. This course is run in the evening; its major concern is to teach adults to read and write. Market women who show sufficient aptitude in arithmetic are also taught how to keep simple accounts.

Primary-school or modern-school* leavers are expected to establish their own sewing and knitting business on completion of their training, or to find wage employment in industry. The objective of the typing, shorthand and office management course is to give participants a skill that is in demand, thereby assisting in providing wage employment. The objective of the literacy class is to reduce the high rate of illiteracy among adults, especially women.

Staff, Plant and Equipment

The center, built on a mountain to the northwest of Ibadan at Mokole, consists of a large building with three classrooms, an office, a kitchen, a laundry, and a storeroom. There are no boarding facilities for trainees. Students who are not natives of Ibadan and cannot obtain accommodations on their own are housed at the Maryway Convent in Ibadan. This is meant to be a temporary arrangement. The Right Reverend R. Finn, Catholic Bishop of Ibadan, is the proprietor of the center; Sister Hilda O.L.A. of Maryway Convent, Ibadan, is the organizer of the school. There is one full-time paid woman teacher; other staff members are volunteers drawn from Ibadan University and from schools in Ibadan.

The school's equipment consists of 11 sewing machines, 18 typewriters and six knitting machines.

Sponsoring and Funding

The course was originally sponsored by the Catholic Mission in Ibadan; it is now being supervised by an inter-denominational Board of Governors.

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* Modern schools are for high-school-aged students who are not at a secondary-school level. Although these schools offer academic work, they have a vocational component. Generally, attendance at such institutions is considered much less desirable than attendance at a secondary school.

The school has various donors; it received a grant of $1,450 from the Western Regional Government in 1964. Other donors include the English Catholic Fund for Overseas Development, $2,800 (1963–64); MISEREOR, $8,400 (1963); and Bishop Finn, $4,200.

Target Population, Recruitment and Wastage

The school's youth course is during the day; the adult literacy class is held in the evening. Typing and shorthand classes meet for two hours early in the afternoon. The student population is drawn not only from Ibadan but from the country at large. Present capacity allows for accommodation of only 40 students at a time. Student selection, except for the evening class, is by an entrance examination in English and arithmetic. No married girl is admitted. It is expected that marriage or pregnancy will be postponed by students until they have completed the two-year course. This regulation has been imposed because students are usually between 12 and 15 years old and because the course lasts two years and no extensions can be granted for maternity leave.

Cost-Benefit

For a two-year course, the students pay slightly more than $84, which is less than the per capita cost of maintaining the school. This per capita cost, however, is relatively low because part-time volunteers who receive no pay are used. After the course, students can either seek wage employment in the textile and dressmaking industries, or establish their own businesses. A sewing machine is the major capital investment for women who open their own businesses. The benefit of the center goes beyond the earnings of the participants. Home-related subjects taught at the center enable women to be more useful and knowledgeable and to fulfill the roles of housewives.

Follow-up

The center keeps in touch with its former students. Successful trainees either get jobs at much higher salaries than those not taking the course or go into self-employment. A lack of funds, however, limits expansion of the project and its potential benefits. The location of the project at Ibadan, with its pool of qualified people ready to render volunteer service at no cost, is a factor in the project's success. It would be difficult to replicate this project in areas not similar to Ibadan. If funds were available to hire full-time personnel, however, the project could become transferable.

c. Shasha Social Development Training Center—Iperu

Shasha Social Development Training Center, Iperu, Nigeria was established in 1956 by the former Western Region Government. At its inception the center offered only one course in citizenship and leadership training. But in

1966, a local government staff training course was added. The former program lasts two weeks; the latter lasts for one year.

The objectives of the citizenship and leadership training course are to provide character training to potential community leaders, to teach them the qualities of courage and endurance, and to develop self-confidence through the realization of capabilities. Each year the local government staff training course provides instruction that prepares 100 male rural development workers for employment by local government councils, and 20 female community development workers for employment in state public service.

Most of the staff members are permanent employees of the Western State Government; occasional guest lecturers are drawn in from the Ministries of Agriculture and Natural Resources, Health, and Economic Planning and Community Development.

The Western State Government initially provided money for running the Shasha citizenship and leadership training course, but in 1965 UNICEF provided substantial financial assistance to the Western State Government. Students pay no tuition, and their board is paid out of the stipend received during their one-year course. UNICEF provides the center with vehicles.

The citizenship and leadership training course attracts a wide range of people, including local government council staff, teachers, civil servants, employees of commercial concerns and members of Boys and Girls Clubs.

Students in the local government staff training course are mostly primary- and modern-school-leavers, sponsored by their local governments, which employ them after their training is completed.

9. TANZANIA

a. Lushoto Integrated Development Project (LIDEP)

Objectives

The Lushoto Integrated Development Project (LIDEP) in Soni (Usambara), Tanzania, aims to provide a combination of extension services and training that will promote the development of villages in the district. The goal is to encourage better nutritional and health practices while giving training in farm techniques and in the carpentry, masonry, and metalwork skills necessary for providing better homes and equipment.

With the help of agricultural extension workers from LIDEP and a village farmer trained at the LIDEP farmers' training center, agricultural production on the village's collective plot is supposed to increase. This produce is marketed with assistance from the center. Profits are saved until enough money has been accumulated to build new brick houses for all village inhabitants, family by family. These houses, and furniture for them, are constructed by the village mason and carpenter, who have also been trained by

LIDEP. The carpenter, the mason, and the village metalworker form a cooperative workshop. The metalworker has been trained by LIDEP to produce simple tools and equipment needed by the village, and to repair a maize milling machine that LIDEP can provide if a village so desires. Villages that ask for the milling machine are expected to pay for it out of profits from agricultural activities.

A LIDEP health team for pre-school children visits a group of villages periodically. The health team's work is backed up by LIDEP-organized rehabilitation centers. Children suffering from severe malnutrition come to these centers, usually accompanied by their mothers. The mothers are taught better nutrition and child care. At the same time, one girl from the village is taught skills that will enable her to return to the village to run a play school for children and to teach nutrition to village mothers. She can also assist the clinic team when it visits the village.

LIDEP's health and medical research unit researches the potability of the village's water. In some cases, the LIDEP community development worker plans better water and sewage systems, which the village metalworker is then trained to maintain. Thus LIDEP strives to improve the village in a coordinated effort that stresses higher production of cash crops, improved housing, and improved medical and nutritional services and practices.

Recruitment and Selection

For the courses in carpentry, masonry, metalwork, child nutrition and rehabilitation, trainees are not chosen by LIDEP, but by the village elders of *Ujamaa* villages cited by the District Development Officer. Students are chosen largely on the basis of their willingness to return to the village after completion of their training. As a guarantee that trainees will return to the village, tools are provided so that trainees can start workshops at the end of each course; these tools are given to the village rather than to individual trainees.

The six-month length of the courses tends to assure the return of trainees to their villages because it allows them to learn only the basic skills needed in the village rather than the more advanced skills needed to compete in an urban market. The educational attainment of all trainees is generally at about a seventh-grade level. LIDEP attempts to train persons from the same village in different courses; it is hoped that these trainees can return to their village to form a cooperative workshop in the building and metalworking trades. It is also hoped that the workshop will eventually replace the competitive approach of present village artisans.

Training

Courses train the student to acquire only those skills most needed in an *Ujamaa* village context. Rather than being taught to become diversified farmers, trainees in the farming course are taught to increase the yields of cash crops already grown in their villages, or of crops that could be successfully introduced there. Heavy emphasis is placed on vegetables, which grow well in the mountainous Usambara region.

The course lasts from three weeks to six months, depending on the crops studied. The only mechanical tool used in the course is an irrigation pump. Trainees learn modern agricultural methods and simple bookkeeping. They are also given a better understanding of the marketing process. Dormitory space allows for a maximum of 16 trainees at a time. Staff consists of one Japanese horticulturist, a Tanzanian graduate of the YMCA Farm School at Marangu, and an American volunteer agronomist. Each course costs about $45 per student; most of this cost is covered by produce grown and marketed by trainees. Close post-course contact is maintained by the trainees and the six YMCA-trained extension workers.

The six-month courses in carpentry, masonry, and metalworking generally train four or six trainees per course. In these courses, the emphasis is on learning to make those items needed in particular villages. Carpenters are taught to make simple furniture as well as the roofs, doors, and window frames needed in the houses built by the masonry students. Masonry students are taught to construct simple buildings. They build houses and offices for the LIDEP staff at Soni, or for extension workers in the villages. In the metalwork course, trainees make those items—tools, buckets, pipes, etc.—that have been demanded and will be purchased by the *Ujamaa* villages. All items are made on an order-purchase basis, and the final metalworking curriculum is established from a record of those items most requested by the villages.

Cost-Covering Activities

Most LIDEP training contains self-financing aspects. LIDEP also owns a brick-making machine that is hired out to groups in the area as an additional means of obtaining money. As a result, each trainee pays no training fees and is given about $11.50 per month for pocket money. This money is usually spent on food and lodging in Soni.

Another fund-raising activity of the center is the operation of a garage that repairs cars and provides a two-year training program in auto mechanics. Written exams are given to applicants from the region, and seven students are chosen for each class. The curriculum, adapted from government auto mechanics courses, is taught by seven *fundis* (local experts—one per student), one teacher of theory (a Tanzanian graduate of a trade college), and a German mechanical engineer who manages the garage. Government certificates are awarded at the end of this course, and it is hoped that trainees will be hired by government garages or start their own cooperative garage.

Nutritional Rehabilitation

Perhaps the most interesting training underway at LIDEP, though it does not finance itself, is that given at the project's Nutritional Rehabilitation Centers. Although this training does not necessarily result in employment, it does change attitudes and living conditions. These changes, in turn, improve the health and productivity of the labor force.

Two kinds of training are given at rehabilitation centers. Training about better nutrition and child care is given to mothers. About 50 mothers of malnourished children, located by the under-five clinics, are brought to the center twice a week for a month to learn about nutrition, child care, improved use of stoves, and the growing of nutritional foods in their own garden plots. As a follow-up, the homes are visited some time after training is completed. About five mothers and 16 of the most malnourished children are brought to live in at the centers while they are trained.

The second kind of training offered by the centers is for girls who are primary-school-leavers. Girls are sent by *Ujamaa* villages to receive six months of training in nutrition and child care. A nurse and a medical assistant give seven lecture periods per week. Trainees also receive practical instruction by caring for the malnourished children at the centers and by helping to instruct the mothers. At the end of their six-month training, trainees are qualified to work in other rehabilitation centers or to start nursery schools in their villages.

Administration

LIDEP was established in October, 1969 by the German Kuber Stifteln Foundation and the counterpart Tanzanian organization, the Community Development Trust Fund (CDTF). The program's Board of Governors includes one German member (either the project director or a representative of the Kuber Foundation), the program's director, representatives of the Tanzanian Ministries of Education, Development Planning, Health, Rural Development, and Agriculture, local members of Parliament, regional administrators, and two national MPs. The Board establishes policies, which must then be approved by the Kuber Foundation and the CDTF. The project is scheduled to be directed and staffed largely by German expatriates until 1973, when Tanzanians are to take over. At present, there are six Germans, one American, one Dutch, and one Japanese on the staff. The program's health research laboratory has already been turned over to Tanzanians; Tanzanians also hold several positions as nurses, teachers and medical assistants. Plans for further training of Tanzanian staff are now being made.

The District Rural Development Officer and the project director determine how the Government and LIDEP can work together for community development. At present, the organization runs 17 pre-school clinics and has activities in about 80 villages.

The future structure of LIDEP is uncertain. The training aspects of the project may be integrated into a rural training center and expanded. It has not yet been decided whether all LIDEP activities will be kept together under one administration or divided so that the Ministry of Health administers the nutrition program and the Ministry of Agriculture administers the farmers' training course. The program's four years under expatriate direction is serving as a testing period to determine which training activities are viable, which should be eliminated, and how the overall project can best be coordinated.

General Comments and Evaluation

The visitor of LIDEP is impressed with the overall attempt to meet the needs of the *Ujamaa* villages. Because of its extension services and multi-faceted training programs, the project is helping Tanzanians to reach the goals of the *Ujamaa* principle. Materials produced by trainees in carpentry, masonry, and metalworking courses, and increased agricultural yields from farmers' training, provide concrete evidence of the possibility of better living standards, even to those villagers not undergoing training.

By developing trainees only to skill levels required by the villages, and by requiring that trainees return to the villages, the project helps to curb the rural-urban migration tendency, as well as to solve the problem of employing its graduates. Increased agricultural output and better marketing procedures help bring new money into the village. This new money creates jobs for LIDEP-trained carpenters, masons and metalworkers. Because trainees have been encouraged to form cooperative workshops, national priorities and ideology are being implemented at the village level.

Much of the success of the project, however, may depend on the energies of individual Germans directing and staffing the organization. The real test of the program's viability will come when the counterpart staff assumes control.

b. Multi-Purpose Rural Training Centers

In 1968, the Tanzania Government proposed to replace Farmer Training Centers and District (Community) Training Centers with multi-purpose Rural Training Centers. The World Bank in 1970 proposed to aid in the construction of four new RTCs and the conversion of five District Training Centers to RTCs.

The multi-purpose nature of the RTC is considered appropriate to the multi-faceted concept of the *Ujamaa* village. A number of different types of training have been proposed for the centers:

1. One- and two-year courses for school-leavers and other youth in agricultural training, home management, handicrafts, etc. All trainees will receive basic agricultural training. Each center is expected to accommodate 280 trainees.
2. One-week training for adult farmers.
3. Instruction in health care, nutrition and community sanitation.
4. Seminars for village leaders.

Each center is expected to have 19 members of staff, drawn from the field staff of various government ministries. It is also expected that each center will become self-sufficient because all labor on the RTC farm will be supplied by trainees. The only recurrent costs would be staff wages.

10. TUNISIA

Social Action Centers

Eleven regional centers and 300 local centers for the promotion of the family and the Tunisian woman have been established throughout Tunisia. These centers provide training to women in literacy, hygiene, child care, sewing and domestic science. The centers were begun by the Union of Tunisian Women, a national women's welfare organization, and are now run by the Ministry of Social Affairs.

Each local center has two social workers who have had 10 months of training at the National School of Social Service, a government-run institute for training social workers. Local centers are usually located in rural areas; each center caters free of charge to about 60 women. Courses are adapted to local needs.

One job of the social workers is to keep occupational and educational information for about 500 to 600 families in the region covered by their center. The social workers also follow the progress of the standard of living of the families of women who have been trained at the local centers.

After the six-month training period, social workers visit the women they have taught about three times a week. They check to see if the women are cultivating family garden spots as they have been taught to do at the center. Social workers also provide at-home counseling or assistance to families. Their activities are coordinated with those of other local groups such as family planning representatives and horticultural technicians. Representatives from regional centers come to the villages about once a month to find out how the social workers are progressing.

Each of the local centers is equipped by UNESCO with blackboards, cooking utensils, baby scales, and sewing machines. The average annual operating cost for each center is about $1,000. The Ministry of Social Affairs provides the building and furniture.

Regional centers are run by social assistants who have had three years of training at the National School of Social Service. The regional centers generally offer training for all age groups. Courses include a two-year literacy course. One room is provided for youth activities and another for child care.

The local and regional centers for social development represent one of the most coordinated systems of family training and development in Africa. Center activities are coordinated at the local and regional level; there is also coordination among different development efforts in each local area, thereby eliminating costly duplication. Although no direct employment results from this training, participants' family attitudes are adapted to modern conditions.

11. UGANDA

a. Martyrs' Community Center—Katwe, Kampala

The Martyrs' Community Center was established in 1963 by the Namirembe Diocese of the Church of Uganda. The Center sponsors a variety of programs for the local community.

1. A hostel and vocational school for destitute boys that sells some of its products to help cover costs;
2. A home industries program for women that produces dolls, Christmas and Easter cards, handbags, etc.;
3. A welfare unit that trains women in hygiene and general welfare;
4. A primary school for destitute boys;
5. A nursery school;
6. Adult classes in literacy and English usage;
7. Commercial classes in shorthand, typing, and bookkeeping;
8. Social activities including plays, concerts and club meetings;
9. A medical unit, consisting of a nursing sister, two midwives and two assistants. This unit treats more than 1,000 patients each month at the center's family planning clinics and in the urban areas; and
10. Worship programs, baptisms, confirmation classes, Sunday school, a choir, etc.

Finances

The program's sources of finance are nearly as varied as the programs. Among the main sources of support are: World Neighbors, Christian Aid, the Uganda Government (supplying teachers for the school), Oxfam, family planning associations, private donations, and fees from courses.

Despite its heavy reliance on external assistance, the Martyrs' Community Center is staffed entirely by Africans (25 paid staff plus volunteers); thus far it seems able to provide training programs relevant to local needs.

b. Urban Kampala Grail Team

The Urban Kampala Grail Team is a three-year experimental pilot project that works in cooperation with the City Council of Kampala. The Grail Team, which has been largely dependent on funds from MISEREOR, a German Catholic organization, has sought to discover whether a low-income, urban-community-development project can survive on volunteer aid. The stated purpose of the program is "to test the community response to an adult education program and to help determine which are the most vitally felt needs."

The project began in 1969 with the short-term goal of developing basic adult education programs for working men and women in urban slums. Emphasis was placed on such fields as functional literacy, homemaking, health hygiene, and leadership training. The long-term objective has been to develop voluntary community organizations to continue administration of these programs. (The Grail Team's expatriate social worker was scheduled to leave the program at the end of the three-year contract in April, 1972.)

The total budget for the three years was originally estimated at $21,475, but expenses are expected to come to about $20,600, or about $6,866 per year. The Grail of Uganda has contributed about $6,500 as salary for the expatriate social worker. MISEREOR has provided the remainder of the funds to cover the salary of an African counterpart social worker, volunteer expenses, teaching and administrative costs, office rent and car maintenance. Although the initial phase of the project is due to end shortly, Miss Jane Namugenyi, the African social worker, is expected to continue in her present role. It is hoped that many of the programs already begun will remain in operation.

12. ZAMBIA

a. Africa Literature Center

The Africa Literature Center of Kitwe, Zambia, is supported by American, British and European Missionary Groups, the Intermedia Organization of New York, the Joint Action for Christian Literature Overseas Organization in London, and the Canadian Council of Churches. It is the first center in Africa to offer formal training in art and literature. The program is geared to training talented Africans from all over the continent in the writing and art skills needed by the communications media and government printing offices.

Art Instruction

The art course lasts 15 months and usually accommodates six to eight students from various African countries. The course has a Canadian and a Rhodesian instructor. After the course students can return to the center for more specialized study. Some of the particularly gifted students are sent overseas for further training. These students are sponsored by church groups or by their government. The students pay $4.50 per day for room and board at the center where the total annual budget is about $23,900. Income from center-produced art work is about $12,000.

In order to find talented students, one-week workshops are conducted for Africans, mainly Zambians, under 20. The workshops help determine what talents students have and to discover those talents at an early age.

Training in Journalism

The writers' program in journalism has an annual budget of $59,000 and an income of about $40,000. The course instructs some 17 students who are required to have had at least two years of secondary education. Students come from 10 African countries for a four- to six-month program. Four months are spent on general journalism. The student can then stay for two additional months to serve as an apprentice with a radio station, a newspaper or a magazine. After this period, the student returns to the center to tell of his experience and to inform the administrators of how well his courses prepared him for his work. All students who have gone on for this two-month apprenticeship have been hired afterwards. The placement rate for the remaining students is also high.

In addition to this apprenticeship program, the center publishes the Christian Communications Journal, a magazine that appraises a wide range of reading matter, both for workers in out-of-school education and for literates at all levels in the community.

Since 1959, 433 students have been trained. The center is conducting a tracer study to determine what has happened to trainees and to find out what suggestions they have for changing the course.

This program, though expensive, deals with training that is often neglected and that will be increasingly in demand due to increased literacy throughout Africa. The program's African nature may have the effect of promoting more communication between countries in the future.

b. Mindolo Ecumenical Foundation

Objectives

The Mindolo Ecumenical Foundation of Kitwe, Zambia attempts to combine adult education with training for better citizenship. Not only does the program provide employment-oriented training, but it also serves, in the words of its former director, Wilfred Grenville-Grey, as a "reconciliation center for the hopes and fears of the people" through its conferences on controversial but crucial issues in development. Good citizenship, participation and community spirit are emphasized in the youth leadership training program, the industry and commerce courses, and the women's training center.

Background

From 1932 until the early '50's, the United Missions in the Copperbelt provided Kitwe with education, medicine, evangelism and social work. In the '50's, the government and the mining companies began to assume these responsibilities, and the Copperbelt Christian Service Council commissioned a survey of the ways in which the church could best provide training in the region. The result was the establishment, in 1958, of the Mindolo Ecumenical Foundation, whose primary goal was to teach women to adjust to changes brought about by development and to help them keep up with their husbands who were gaining increasing responsibilities. The foundation gained acceptance when it served as a forum for discussions between African nationalist leaders and the European political, industrial and commercial elites. Since independence, the foundation has developed specific training programs and has held conferences among influential Zambians and other Africans on such topics as "Race Relations—Consultation for Southern Africa," "Human Problems of Land Settlement," "Making Towns More Liveable," "Women's Rights in Zambia," and "Family Planning."

The foundation is governed by a Board of Governors consisting of six representatives of the Christian Council of Zambia, two Roman Catholics, four members of the Mindolo staff, and one member each from the National Assembly, the University of Zambia, and the All Africa Conference of Churches. There are also 12 independent governors. The 100-acre campus, with dormitory facilities for about 200 students, has cost about $2,142,900 since 1958. About 60 per cent of the foundation's financial resources come from outside donors including the British Council of Churches, The United Church of Canada, Farringdon Independent Church and the Robertson United Church of Canada. Funds from the U.S. have been contributed by the United Methodist Church, the United Presbyterian Church, and the United Christian Missionary Society (Disciples). From Germany, assistance has come from *Brot für die Welt, Dienste in Ubersee,* and *Evanglesche Arbeitsgemeinschaft für Weltmission.* Help has also come from Oxfam and from Lutherhjalpen, a Lutheran charitable organization. Most of the capital expenditures and a significant amount of the recurrent expenditures have been contributed by the World Council of Churches.

About 32 per cent of the foundation's cost, about $50,000 per year, is contributed by Zambian mining companies. The remaining funds come from individual Zambian contributions and from course fees. The staff includes 24 teachers, 22 administrative and supervisory personnel, 25 kitchen, maintenance and grounds personnel and five security guards. The program, since 1971, has been directed by a Zambian, Jason Mfula, formerly an adult education teacher, an education officer for a mining corporation and the secretary-treasurer of the Organization of Christian Lay Organizations of Africa.

Women's Training Center

The oldest training activity of the foundation, the Women's Training Center, is divided into three major activities: a six-month training course for married women; a six-month training program for single girls and a unit known as the School on Wheels. The six-month residential training courses usually involve 40 to 50 trainees. Generally, students have no more than a primary education. Admission priority is given to those married women whose husbands are moving into positions of responsibility and therefore require capable and modern wives. Because of limited staff and facilities, some women must apply two or three times before they are admitted. Staff consists of two full-time Zambian teachers, a Zambian volunteer who teaches knitting, and one American volunteer who teaches recreation.

The instructors have been to secondary and teacher-training schools and have experience as teachers and community development workers. The curriculum, which is similar for married women and single girls, includes handwork (pottery and beadwork), knitting and sewing, pattern cutting, housewifery (house cleaning, and carpet, furniture, refrigerator and stove care), cookery (both Western and African traditional), nutrition with African foods, first aid, English, budgeting, Bible study, and gardening. Each woman maintains a garden plot near her dormitory. Produce grown on these plots is sold to the National Nutrition Commission. Trainees also take turns giving cooking demonstrations for the Zambia Government's Nutrition Commission.

Fees and Accommodations

Fees for the courses are about $39 per month for married women and $28.50 per month for single girls, including room and board. Married women pay more because each can receive child care for one child under five years old. The women live in dormitories, each of which houses eight women. They eat noon meals in the central Mindolo dining hall, which gives them an opportunity to meet and talk with important men in a social situation. Other meals are eaten at the center's own, less expensive dining hall.

After training, single girls often work as aides in primary schools; some go on to teacher-training schools. Married women often form clubs in which they make handicraft items for sale. As a follow-up measure, surprise visits are paid to the homes of former students. Three-month refresher courses are offered periodically. The most prominent graduate of the course is Zambia's First Lady, Mrs. Betty Kaunda, who still visits the center frequently.

The School on Wheels is a trailer equipped with tables and chairs, cooking stoves (charcoal), sewing machines, and living accommodations for two teachers. It travels to rural areas and police camps designated by the Ministry of Rural Development. The mobile school offers instruction in the most important aspects of the training given at the center—cooking, sewing, knitting, nutrition and child care. Generally 30 to 40 women, both married and unmarried, are involved. The program has been operating for about three years. During this time, husbands have played a key role in encouraging their wives to complete the training. Drop-outs from the course are rare, and women often form cooking and sewing clubs after completing the training.

Youth Leadership Training Center

Here training is given to young people 19 to 35 who are youth leaders in various clubs and organizations. Each trainee must be sponsored and promised full-time employment by a church, a voluntary organization active in youth work, or a government or industrial organization. The sponsoring body must pay $966 for the seven-and-a-half-month training, plus an optional $14 per month pocket money. Some scholarships are available from the Mindolo Foundation.

There are usually between 16 and 19 trainees in this section. They may come from all over Africa, representing about 10 countries. Housing is the primary constraint on expansion in students because there are only eight double bedrooms available. The staff size is another inhibiting factor. At present there are only three members: the director, an Ethiopian educational psychologist; a German theologian with experience in parish youth work; and a Zambian social worker. Because the training fees do not cover the salaries of the staff, only the Zambian's comes from Mindolo-generated sources. The other two staff members are paid by the German organization *Dienste in Ubersee*.

During the first six months of the training, given at the Mindolo Center, the trainees study adolescent development and behavior, aims of youth work, problems of development in African societies, community leadership, training volunteer leaders, program planning, administration, and audio-visual aids. They also learn to teach health education, recreation, first aid, agriculture, typing and English.

The seventh month is spent "in the field," i.e., working for a youth organization. Then half a month is spent back at Mindolo evaluating the training given and discussing practical applications of the principles learned. During the course, trainees can work at the coffee house that Mindolo sponsors in Kitwe for area youth, as well as at the Mindolo weekend camp.

During the remaining four and a half months each year, the Mindolo youth-training staff travels throughout Africa, to talk with the employers of former trainees and to give special two-week courses in youth leadership in organizations that cannot afford to send trainees for the seven-and-a-half-month course.

Training for Industry and Commerce

This division of the Mindolo Ecumenical Foundation tries to train Zambians for management and supervisory positions because of the increased need for such personnel due to government takeover of industrial and commercial organizations. The most emphasized level of training is for supervisors. They are taught the functions of a supervisor, the principles of organization, human relations, communication, instruction techniques and the supervisor's role in personnel management. This five-day course costs approximately $85, including room and board. The center has given about 40 such courses with about 15 men in each. Advanced follow-up courses are then often given for one day per week for 10 weeks on location in the supervisors' companies.

The basic supervisory courses are often given concurrently with courses for shop stewards in order to open up communication between management and union representatives. The fee for the shop stewards' course is $93 for five and a half days, including room and board. Stewards are taught trade union and management cooperation and responsibilities of shop stewards in industrial relations. Each course has 15 to 30 trainees; four such courses were given between 1968 and 1970.

Training for personnel officers lasts two weeks, costs $215, including room and board, and includes the function of personnel management, recruitment and selection, wages and benefits administration, education and staff development, and health, safety and welfare. Three of these courses are offered each year, with about 15 trainees in each.

To increase the multiplier effect of the Mindolo training, courses are offered for industrial training officers. Not only are they taught to give the Mindolo basic supervisory course, but they also learn to determine performance standards, to appraise performance, to design training schemes, and to evaluate training. Their course also lasts two weeks and costs $215. After training at Mindolo the students are required to undertake projects in their own organizations under the tutorial guidance of the Mindolo staff.

Other In-Service Courses

Post-training projects are also required of those taking the executive development course, which trains junior management personnel who are preparing for higher levels of responsibility. Their training lasts one month and costs approximately $500. They are taught planning, organization, staffing and training, direction, and control.

Follow-up consists of visiting the companies of the trainees, consulting with their managers and obtaining suggestions for curriculum changes. In one advanced supervisors' course taught last year, all trainees received at least one promotion.

Further services offered by the division are in-company consultant service at the rate of about $29 per consultant per half day and one-day conferences among senior management personnel.

The staff includes six instructors with both academic and practical experience in business and commerce, two of whom are volunteers and two of whom are Zambians. The two expatriate volunteers visit small shopkeepers in the area to give advice on techniques of buying, pricing, storage, selling, display, bookkeeping, customer relations, cash control and profit calculations. They also run five-day residential courses in the same subjects for $70. The total budget of this division for 1971 was approximately $86,000.

General Comments and Evaluation

Two aspects of the Mindolo Ecumenical Foundation are particularly important. The first is its emphasis on community spirit in development and the need to confront the controversial problems of development and discuss them frankly. Certainly both of the tasks are made easier by the Church sponsorship of the center. The Christian element of the training provides the perfect opportunity to discuss the role of ethics in development. Because the center is supported by churches and largely from outside Zambia, controversial issues can be raised and discussed in conferences without political pressures or censorship. The important remaining question is whether or not other types of sponsors could be found who would be allowed similar freedom and who could develop the sense of community without emphasizing Christian doctrine and without spending money and time on chapels and church services.

The second important aspect is its choice of training programs that have multiplier effects. By training women for the home it in a sense contributes to the parental training of future Zambians. By training youth leaders, rather than individual youths, it reaches a far wider segment of the population. Certainly well-qualified youth leaders are essential if other non-formal training projects for youth are to succeed. Finally, by training the management personnel and training officers of industry and commerce, the Mindolo Center is helping to fill the African management gap and will indirectly affect the lower-level personnel in these firms.

The Mindolo Center, though especially well equipped, is not the only one of its kind in Africa. It is one of nearly 30 lay training centers in Africa and Malagasy that are linked in an association. The director of Mindolo is secretary to this body.

CONCLUSIONS

Purposes of Non-Formal Education

A typical aim of non-formal education is to prepare people for wage employment or for self-employment. The brigades in Botswana, the National Youth Service in Kenya, and the farm institutes in Kano State, Nigeria, are examples of this kind of training. Another aim may involve upgrading the knowledge and skills of those already employed, as in the Pan-African Institutes in Cameroon and in the Ethiopian Airlines training project. A third approach, not directly tied to job creation or improvement, focuses on awakening the national awareness of the population or on its cultural and spiritual improvement. Although our study has not concentrated on this third category to any great degree, we have included several cases that we felt were noteworthy, such as the Citizenship and Leadership Training Center in Nigeria and *Animation Rurale* in Senegal.

Clientele

Our investigations also confirm that non-formal education programs have different target populations. Projects such as village polytechnics in Kenya or pre-vocational training centers in Tunisia are designed to reduce unemployment among youth. Other projects aim particularly at women, as does Mancell's Vocational Training Institute in Ghana and the Women's Training Center at Mindolo in Zambia. The work-oriented Adult Literacy Program in Tanzania exemplifies an approach geared to all adults. Some programs aim at stimulating industrial output, while others focus on the modernization of agriculture. In discussing non-formal education, it is therefore vital that the purpose and target population of each program be identified in order to provide a fix on the most relevant data.

Priorities

Because there are so many possibilities in non-formal education, it is helpful to delineate African priorities. These priorities call for the design of programs to generate employment for youth in rural areas. Such programs must be part of a broadly based, multi-factor approach to the overall problem of rural development. Jon R. Moris, a professor of political science at the University of Dar es Salaam, in a well-argued critique of current trends in employment training for rural youth, has listed several minimum criteria for effective programming. Three of these criteria are that programs must take young people's motivations seriously, that programs must vary according to the scarcity of land, and that they must offer genuine participation in the cash economy. There is a general recognition in all African countries that the primary educational system does not adequately prepare young people for participation in the economy. The scarcity of opportunities for further formal education is also evident. But the emphasis on non-formal education, particularly in the rural sector, varies among African countries. There is greater commitment to rural development in Tanzania than in most other countries. In many countries, some emphasis is placed on training for small-scale industrial enterprises, either private or cooperative, but such projects generally have lower priority than employment generation and rural development. In countries where there is a strong ideological bent, as in Tanzania, political education receives considerable attention.

Characteristics

1. Scale and Size of Projects. Non-formal education projects are not easily enumerated. One must distinguish between fairly well-structured projects, which often resemble formal schools, and relatively unstructured projects such as apprenticeship, on-the-job training and extension programs. Few attempts have been made to determine the total number of structured non-formal education projects and their objectives and enrollment, to say nothing of the unstructured programs. In short, there is a good deal of ignorance about the total effort, with regard to the money and manpower that is being devoted to non-formal education.

Some observers think it would be impossible to compile a meaningful inventory of structured non-formal education projects in any African country. While recognizing the difficulty of assembling such data, we feel that certain base-line information is essential for planning national strategies for human resources development.

As the case studies indicate, the annual enrollment in each project is relatively low, ranging from 10 to 60 students in most cases. In a few cases, as many as 100 trainees were enrolled, and very rarely, programs had 1,000 or more trainees. The Kenya National Youth Service, Mancell's Vocational Institute in Ghana, and the Tanzania Adult Literacy project were among the largest projects studied.

2. Recruitment. In some cases, entrants to non-formal education projects were admitted on the basis of competitive examinations. More often, however, the procedure [illegible] admission involved an application and an interview.

3. Staff. The dedication and competence of staff at the vast majority of projects is quite impressive. Often staff members accomplish difficult tasks with little modern equipment. One typical feature of non-formal education projects is the presence of expatriate staff, at least in the initial stages. Although expatriates are not indispensable to the operation of non-formal programs, the extent of their involvement raises two critical points. The great majority of expatriate salaries are paid by outside agencies, including volunteer organizations. These salaries may represent a kind of hidden cost, where they are not included in tabulations of local expenditures. In addition, African governments must create incentives to attract African staff to work in non-formal programs, especially in isolated rural areas where, until now, expatriates have generally been willing to work under difficult conditions.

4. Duration of Courses. The length of courses varies according to a project's objectives. Most of the pre-vocational programs range from six months to two years in length; one year is a fairly common time span. The farm institutes in Kano State, Nigeria, and the management courses at the AFCA in Cameroon both operate one-year programs. The brigades in Botswana offer a three-year training program, but this is to allow them ample time to cover recurrent costs by selling what they produce.

Courses to upgrade the skills of those already employed vary from a few days to two years in length. Most of these courses are short, especially when residential, because most employed persons cannot be spared from their jobs or from their farms for long periods of time. Where courses are conducted in the participants' home areas, their duration is usually longer, as the 18-month cycle of the Adult Functional Literacy Project in Tanzania illustrates. The longer the courses last, the more difficult it may be to distinguish them from formal educational programs.

5. Curricula and Teaching Methods. The objectives of most non-formal education projects tend to be specific. For this reason, curricula are tailored to suit these objectives and to emphasize practical demonstration rather than theory. The Pan-African Institute in Cameroon, for example, stresses field work in local villages; at the LIDEP project in Tanzania, students are taught by producing goods needed in their own *Ujamaa* villages.

In most cases, the student-teacher ratio in non-formal education programs is smaller than in formal schools. Some non-formal programs allow for feedback by adapting their curricula to information received from employers, as in the National Vocational Training Institute in Ghana or the Pan-African Institute in Cameroon. The more effective projects continually adapt their curricula and methodologies to changing market demands.

6. Sponsorship. A wide range of agencies sponsor non-formal education programs in Africa. Governments sponsor many institutions, but relatively few of these work as effectively as privately supported projects. Several of the more innovative government-sponsored programs, however, have functioned successfully. The ZAPI in Cameroon and the Ceramic and Textile Training Programs in Western State, Nigeria, are two such examples.

Many of the United Nations agencies have made significant contributions to a variety of projects. Several major bilateral aid donors have also assisted by supplying funds and materials, as well as ideas and personnel to help get programs started. Several case studies document the important role the Christian churches have played in non-formal education. INADES in the Ivory

Coast and village polytechnics in Kenya are two examples of church-assisted projects.

Another common type of sponsorship comes from private international or philanthropic organizations such as the Pan-African Institute in Geneva and The Ford Foundation. Private and quasi-governmental indigenous organizations such as the Nigerian trade unions and the Kenya Tea Development Authority also support programs. Private individuals, operating for profit or for philanthropic reasons, have also had enormous impact. Patrick Van Rensburg's role in the formation of brigades in Botswana is perhaps the most notable example.

Impact

One means of judging the impact of a non-formal education project is by relating its performance to its stated objectives. Because our case studies focused primarily on employment generation, our findings tend to reflect a close correlation between non-formal education and the creation of skills and jobs. Such a close correlation, however, is by no means typical of all programs, and several projects have only weak links with the job market. In cases where a program's impact is indirect (a literacy program, for example, may indirectly encourage fewer and healthier babies), we could not always draw firm conclusions about performance. Even for the more effective job-oriented programs, the amount of employment being generated is small in most cases. (The Kenya National Youth Service is a notable exception.) Overall national commitment to non-formal education, in both the public and private sectors, seems to be grossly inadequate, given the task at hand. *But strengthening this commitment need not involve massive expansion of the facilities of existing programs, for this runs the serious risk of over-saturating local demand for specific skills. The replication and adaptation of existing models to different local contexts seems a more promising guideline for policy-makers.*

Until the number of effective programs can be greatly increased, non-formal education in Africa will continue to be limited to what we have called "micro-solutions to macro-problems." Current plans call for dramatic expansion of the functional literacy program in Tanzania. If this expansion is achieved, millions of adults could be reached and the impact on the Tanzanian economy could be revolutionary. The Vocational Improvement Centers pioneered by The Ford Foundation in Northern Nigeria, if sufficiently expanded in urban areas, could also have major implications for the economy at large. Several other promising models have been cited in our case studies, but these are currently operating at limited levels.

The impact of the non-formal education projects that are not job-related is difficult to determine. Projects in this area are quite diverse and include non-functional literacy programs, community development projects, programs emphasizing the use of the mass media, and general programs conducted by the adult education departments of various universities. Most institutions engaged in these programs were making little attempt at evaluating their efforts. Some preliminary cost-benefit analysis, in terms of size of audience reached and changes in attitudes observed, is badly needed.

Finance

Because the impact of non-formal education projects relates closely to their scope of operation, and the latter is largely determined by resources, the question of finances is critical. Our case studies show several financing patterns. In order to raise funds, many projects depend on government financing with various patterns of fees charged to trainees or their employers.

External Aid

In most cases, external assistance is more in the form of expert personnel than equipment. Such assistance was usually given for a limited period, at most five years. The viability of projects after external assistance is withdrawn is far from certain, especially when expansion is attempted. In some cases, as in the Bako project in Ethiopia, sound projects have been abandoned for lack of continuity in external assistance. The financial basis of many projects that receive external aid is shaky and more attention must be given to finding a more viable basis of support, including a reexamination of the role of external assistance in prompting innovation.

External assistance from major donors tends to be given in the form of technical assistance or capital. For many non-formal education projects (especially those that are economically run and tend to minimize the use of costly equipment) recurrent costs constitute a large proportion of total costs.

Aid agencies are understandably reluctant to support recurrent costs except by providing short-term technical assistance and materials. Perhaps the most difficult problem for donors is to find the most effective institutions within each country through which to channel large amounts of money to small projects. These institutions must be able to identify and develop genuine local demand for training programs so that local resources can gradually take over the financing of the programs

Internal Resources

African governments and private agencies may benefit from already-existing agencies, thereby making program expansion possible with available resources. In the Tanzanian functional literacy program, 2,000 primary-school teachers were assigned in 1971 to adult literacy classes without additional pay. As a result, 2,200 under-utilized primary-school-leavers were involved in a program at low costs. Intensive utilization of existing classrooms made new construction unnecessary. Similarly, the Vocational Improvement Centers in Nigeria, using existing school buildings and already-employed staff, are upgrading the skills of craftsmen, without constructing additional buildings or increasing teaching staff.

Cost covering or quasi-commercial enterprises provide additional examples of internal resource generation. Programs that attempt to cover costs do not charge participants any fees, but require them to pay their way by contributing to the output of the project, which is sold on the open market. As participants become more competent, training and production are closely intermingled. Such projects usually require a fairly long period of trainee involvement, but they increase trainee competence because their emphasis is on production experience. Some of the better participants may remain in the enterprise as full-time producers or as instructors. The well-publicized brigade system in Botswana is based on this principle of cost covering.

In some projects run on the full costing principle, student fees cover costs of operation; other such projects run on the profit motive. This model is not recommended on a wide scale, because high fees may prevent many deserving students from participating. Yet the desire for training is so strong that many parents and students are willing to pay fees. One of the largest institutions studied was a private, fee-paying school, Mancell's Women's Vocational Institute, Kumasi, Ghana, with an enrollment of about 1,000 students engaged in various courses. The school apparently succeeds in placing most of its trainees in jobs. Experience at the Mancell project enhances the plausibility of a mixed strategy of financing, including fee-paying (at moderate levels) and other measures.

Although it is difficult to make evaluative comparisons between formal and non-formal education programs, an important conclusion that emerges from our survey is that non-formal education is less expensive per trainee than formal education.

Participation by Employers

One of the vexing problems in formal education is that the output of the formal system is not sufficiently related to the needs of employers. This fact, combined with financial constraints, has led many non-formal programs to seek a greater share of training costs from employers. But business has been slow to assume a larger role. Many businessmen fear that after investing considerable resources in the on-the-job training, a major form of non-formal education, other producers will steal trainees away by offering them salary increments amounting to only a fraction of the cost of training. The United Africa Company in Nigeria found, for example, that graduates of its Technical Training School were being lost to other producers after the company had borne the full cost of their training. UAC consequently cut back on this form of training.

Kenya is attempting to address this problem by implementing an Industrial Training Levy. Though still in its initial stages, the levy system is soon to be adopted by Nigeria, as indicated in that country's 1970–1974 Development

Plan. The basic idea behind the levy system is that all members of the business community will contribute, through a compulsory levy, to a training fund. Firms conducting on-the-job training will be reimbursed for training costs out of this fund. The system guarantees that if those who conduct training lose their trainees, they will at least lose them to enterprises that have borne part of the training cost. The levy system, if applied in more African countries, would aid in mobilizing more resources for non-formal education.

Links Between Non-Formal Education and Markets

Non-formal education may be the vital link between the formal school system and employment opportunities. Unfortunately, however, not enough attention is given to criteria that must be met if the connection between formal education and jobs can be made. A major conclusion from our case studies is that successful non-formal education projects are effective in designing and teaching relevant curricula. Furthermore, they often make arrangements to ensure that their trainees will be productively absorbed in the economy, and that their new skills will be employed to increase productivity on the job. Where direct placement links are not provided, trainees competent in relevant skills may still find themselves unemployed, even in under-developed countries. The Bako project in Ethiopia illustrates this latter point. Youths were well trained in modern agricultural techniques, but some of them could not find agricultural work after their course—mostly because they could not obtain the necessary land and capital to begin farming. This was not due to a lack of foresight by the project planners, but was simply the result of a lack of relevant resources. The government had made no provision for trainees who could not obtain financing from their families.

There are several examples of non-formal education projects that have made effective links between training and the job market. The Farm Institutes in Kano State, Nigeria, for example, include a clear arrangement as to how trainees will be employed as farmers. This arrangement includes making access to land a condition of admission to the program. Local communities are persuaded to provide applicants from their area with land, as a minimum of start-up capital. The *in situ* training in Farmers' Brigades in Botswana is based on similar aims.

In the case of wage employment, there have been close ties between the Kenya National Youth Service and employers. When these links are utilized in developing curricula, they increase the marketability of trainees. In training operators of small businesses, the close matching of training activities with criteria for granting loans (as in the Industrial Development Center in Zaria and Partnership for Productivity in Kenya, and the AFCA Centers in Cameroon) increases the chances that these businessmen will receive loans to expand their business. Many of the effective projects are also careful to insure that their training does not saturate the market with any particular skill.

It should be stressed that non-formal education is only part of the answer in the Africa-wide search for employment generation and the upgrading of skills. Equal attention should be paid to the availability of other government efforts, particularly in job creation, the adequacy of demand, and the consistency of overall government policies. Despite the availability of necessary resources and an assured market for their output, some trainees in the Nigeria Western State Ceramics and Textile Training Programs still migrate to urban areas to compete for high wages. Policy considerations cannot overlook the vital matter of incentives.

Relation Between Formal and Non-Formal Education

Current interest in non-formal education in Africa and elsewhere has been stimulated, in part, by the belief that effective non-formal education can eliminate or substitute for formal education on a large scale. Our studies do not support this notion. In most cases, non-formal education is seen as a complement to formal education. In most cases, non-formal projects require some minimal level of formal schooling as a condition of entry. Only a few cases appear to confirm the hope that non-formal education can substitute for formal schooling, but this apparent substitution is better seen as compensation for missed opportunities.

Preliminary tests from the Tanzanian Work-Oriented Literacy Program show that primary-school children in the third grade substantially out-performed adults tested in all areas of writing, reading, and arithmetic. Managers upgraded from the ranks, even though competent, often lack the breadth of vision and the imagination of university graduates. The fact that employers recruit university graduates (some of them with no business training at all) for managerial jobs, rather than upgrading people from the ranks, confirms our view.

It may be argued with some justification that good non-formal education is better than bad (and expensive) formal education and should be substituted for such. But we see current interest in non-formal education as a call for renewed efforts to make the formal education system more efficient and more relevant for African conditions. Many businessmen have lamented the decrepit condition of trade centers, and numerous studies have pointed to expensive technical schools whose graduates cannot find jobs. When asked if they thought these institutions should be scrapped for direct on-the-job training, however, employers argued that what was needed was a reform of the formal schools. They said that on-the-job training was more effective when it built on the foundation of a solid formal system. We see these comments as indicating what the correct future orientation should be.

The formal system, in its search for ways to become more relevant, is reaching beyond its traditional boundaries to previously ignored populations. The various centers for continuing education and adult education in African universities are becoming increasingly active in stimulating non-formal education. Some formal secondary schools are experimenting with ideas developed in non-formal education projects and even merging with them. Tai Solarin's Mayflower School in Nigeria contains many non-formal aspects, and Tanzania President Nyerere's famous statement on "Education for Self-Reliance" is a model for linking formal schooling with the needs of rural communities. As non-formal education projects expand and become more structured, the distinction between them and formal schools may become blurred.

The Role of Central Governments

The vast majority of non-formal education programs in Africa are run by non-governmental agencies. With few exceptions, African governments have accorded lower priority to the training of adults or out-of-school youth than to the formal school system. Despite the fairly wide-spread awareness of the problem of unemployed school-leavers (primary, secondary and even university level), no African governments have committed significant resources to dealing with the problem. Taken together, school-leavers and adults far outnumber those enrolled in formal school systems. Yet because parents' demands have focused on improved opportunities for their children and not for themselves, governments feel less pressure to cater to these groups than to provide schools for youngsters.

It is difficult to assess the importance of governmental effort in the area of non-formal education, but of the countries visited in our survey, Tanzania clearly stood out as unique in its commitment to the education of adults. When seen against the background of the revolutionary policy document "Education for Self-Reliance," issued in 1967, one can understand President Nyerere's declaration on New Year's Eve in 1969 that 1970 would be Adult Education Year. In "Education for Self-Reliance," Nyerere made it clear that Tanzania could not afford to wait until all children were educated, and that the schools of the country must serve the entire population and not merely a fortunate few.

By focusing top priority on adult education. Tanzania has gone far beyond the traditional designing of extramural courses for those adults who were sufficiently motivated (or sufficiently educated) to take advantage of them. Tanzania's policy aims at total mobilization of the country's human resources by means of every available institution. In his speech declaring 1970 Adult Education Year, Nyerere stated, "The first objective of adult education must be to shake ourselves out of a resignation to the kind of life Tanzanian people have lived for centuries past."

Although it cannot be said that Tanzania has solved all the problems of coordination, the close ties between the government and the Institute of Adult Education at the University of Dar es Salaam have helped make the official commitment to non-formal education more effective.

Well-informed observers, both Kenyans and outsiders, have noted with optimism the establishment in 1965 of the Kenya Board of Adult Education. This unit coordinates activities of the numerous agencies involved in adult education in the country. At the district level, similar optimism was voiced over establishment of multi-purpose district training centers in Embu and Kwale. District centers attempt to integrate training activities of rural development cadres at the district level.

Notwithstanding the unquestionable desirability of institutional arrangements that facilitate integration at the national and local level, it is apparent that without greater commitment on the part of government, the Non-formal Education Movement does not get much beyond statutory status. The multiplicity of vested interests (e.g. public works, agriculture) competing for scarce government funds continues as an impediment to coordination of training activities in Kenya, as it does in most other countries.

Coordination

Despite the difficulties in achieving meaningful governmental commitment to non-formal education, central coordination is clearly necessary if efforts are to be more than isolated projects, each competing for scarce resources. As governments identify development priorities and set targets for production and employment, the requirements of a national human resources development strategy will emerge.

In the past, manpower planning has concentrated on the needs of the modern sector in relation to the output of the formal education system. Although we are well aware of the limitations of such efforts, new ways must be found to estimate skill requirements in rural communities and the capabilities of all training programs—both formal and non-formal—to meet these needs. This does not mean government takeover of all non-formal education, for most of the successful projects identified in our study thrived on a high degree of autonomy and flexibility. What it does suggest is that ways must be found to permit governments to establish national programs of economic incentives (e.g. pricing, marketing, infrastructure, taxes, etc.) that will achieve national priorities, while leaving the administrative aspects of designing and running programs to various local agencies. The Kenya Industrial Training Levy and the Ghana National Vocational Training Institute are examples of efforts to achieve some of these objectives.

In each country, administrative relations between central government and local projects (both private and public) will vary. Local and regional administration is generally weak in Africa, and although we consider local planning and administration to be important long-term objectives, we would be reluctant to burden non-formal education projects with further red tape. There is simply not enough information to suggest a definitive model at this point, but a greater governmental commitment to planning and coordinating non-formal education programs will be needed if more rational decisions are to be made.

Governmental commitment does not mean that any successful training program can or should be continually expanded. Even if the financial resources and staff were available (which they are not), such expansion would probably saturate local demand for the goods and services produced by the various programs. Thus, while we strongly support greater commitment by governments to the planning and coordination of non-formal education programs within comprehensive development strategies, it would be unrealistic to look for national application of programs within the foreseeable future.

Agenda for Action

Our study, being a preliminary effort, is fraught with limitations. As the foregoing sections have indicated, available data in many cases simply do not allow for an assessment of cost-effectiveness. At best, the figures we have cited allow a rough estimate of cost-benefit ratios. We hope that we have identified some models of non-formal education programs that may be transferable—at least in part. We also hope that our analysis of critical problems in this field will assist planners and policy-makers in developing programs. Another useful means of spreading the little information available on non-formal education would be to arrange workshops and seminars so that Africans could learn about programs in other countries. Twenty or 25 persons in key positions in their countries could, for example, visit the projects described in our in-depth case studies. This might be a better way of communicating available information than written reports, which can only distill a limited amount of information.

Areas for Further Investigation

Further systematic evaluation of non-formal education is urgently needed to provide the basis for the policy decisions that African governments and external donors must make. This research and evaluation should be done by African institutions wherever possible. Within each country, the institutions most capable of carrying out this sort of evaluation are the adult education or continuing education centers attached to universities. We also recommend that the African Adult Education Association receive assistance for coordinating such research. Although mainly restricted to Anglophone Africa, the AAEA has attempted to build links with Francophone countries as well.

The AAEA produces a newsletter and has great potential outreach. Various institutes of social research attached to universities can also be helpful. Among the primary topics on which additional research should be done are:

1. The links between training programs and local needs or markets;
2. Cost of training programs in relation to different target groups;
3. Institutional and administrative arrangements for training different groups (e.g. links between central and local governments, links between private and public agencies, etc.);
4. Total resources committed to non-formal education, and productivity

of the system, preferably on a national level but at least on a regional sample;

5. Attitude surveys of parents and trainees to determine their expectations and willingness to support alternative programs;
6. The direct or secondary effects of non-formal education. Assessment of the long-term impact of programs on the general welfare of individuals and communities.

Non-formal education cannot be seen in isolation from the broader context of African development. In the 1970's, the priority areas for research and innovation will clearly be *employment generation* (including self-employment) and *rural development*, primarily for out-of-school youth.

This does not imply that problems of urbanization or adult education are unimportant, for the distinctions between problems are often arbitrary, and we have already identified adult educators as a likely resource for future studies of non-formal education. Non-formal education programs, no matter how well designed and funded, cannot by themselves solve the related problems of employment generation and rural development. Research and development in these areas, however, must pay greater attention to the variety of opportunities for upgrading human resources outside the formal school systems.

APPENDICES

APPENDIX I

International Workshop on Non-Formal Education, Lagos, Nigeria
November 13–16, 1971

I. Description

An international workshop on Non-Formal Education in African Development was held at the Nigerian Institute of International Affairs on Victoria Island, Lagos from November 13–16, 1971. Jointly sponsored by the African-American Institute and the Continuing Education Center of the University of Lagos, the workshop had the following goals:

- **A.** To provide a forum for a critical and comparative analysis of the scope of non-formal education in Africa.
- **B.** To examine the draft report of the African-American Institute survey and assess the contributions of different types of non-formal education programs to African development.
- **C.** To exchange opinions and gain new ideas and insights on research strategies to be adopted in subsequent studies on non-formal education in Africa.
- **D.** To identify priority program needs and develop guidelines that might be adopted for future area studies on non-formal education in Africa.
- **E.** To provide feedback on the financial and administrative implications of the projects, and to suggest guidelines that might lead to positive actions on the part of aid agencies, international bodies and African governments.

In order to focus as closely as possible on the substantive issues raised in the draft report, the participants were divided into five small working groups that dealt with the following areas:

Pre-vocational

(1) Self-employed rural youth
(2) Urban youth (primarily pre-employment training)

Life-long Education

(3) Literacy, leadership, women's education and community development
(4) Upgrading adults' skills and competence in self-employment
(5) On-the-job training and wage employment

The reports of the five working groups and the discussions in the plenary sessions were quite valuable. Corrections of factual errors and numerous suggestions concerning specific points in the first draft were subsequently incorporated in the final version of the report. Participants also recommended reorganizing the report's format along clearer categorical lines.

It is hoped that the workshop will have a significant long-term impact. By bringing together experts who are actively engaged in innovation and administration of different training programs, the workshop laid the foundations for a network that will facilitate the flow of new ideas and information throughout Africa. As noted repeatedly in our report, the absence of communication about non-formal educational efforts has characterized planning in Africa and in other developing areas.

Thus the initial outgrowth of both the workshop and this report should be an increase in the exchange of information, ideas and experiences. Subsequently, the replication and adaptation of successful models can be undertaken, though it is clear that intensive research, wherever possible involving African scholars and institutions, must continue.

One of the study groups at the workshop recommended that each African country undertake an inventory of all relevant programs operating within its borders. The group suggested the end of 1973 as a deadline for compiling these inventories and urged that the studies examine the relationship of non-formal education projects to respective national plans and socio-economic conditions in different African nations. The recommendation of a deadline reflects the urgency of the task. The emphasis on coordination with national development planning is also commendable: this report documented the virtual autonomy of many programs whose operations remain largely unknown to policymakers and administrators in many governments.

II. Workshop Participants

1. AKINPELU, B. A. (Mr.)
Senior Instructor
Citizenship & Leadership Training Centre
Sea School
P.M.B. 1187
Apapa, Lagos, Nigeria.

2. ASIEDU, E. (Mrs.)_
Principal
Mancell's Girls' Vocational Institute
P.O. Box 498
Kumasi, Ghana.

3. BANIBENSU, R. A. (Mr.)
Research Fellow
Institute of Adult Education
University of Ghana
Legon, Accra, Ghana.

4. BIGELOW, R. E. (Mr.)
Project Specialist in Education
The Ford Foundation
P.O. Box 2368
Lagos, Nigeria.

5. BOWN, L. (Professor)
Head, Adult Education & General Extension Services Unit
Ahmadu Bello University
Zaria, Nigeria.

6. CROWLEY, W. D. (Mr.)
Assistant Director
Division of Extra Mural Services
University of Botswana Lesotho & Swaziland
P.M.P. 22
Gaborone, Botswana.

7. DIEJOMAOH, V. P. (Dr.)
Deputy Director of Project
School of Social Studies
University of Lagos
Yaba, Lagos, Nigeria.

8. DOYLE, L. A. (Professor)
Associate Director
Continuing Education
Michigan State University
7 Kellogg Center
East Lansing, Michigan, U.S.A.

9. FOX, M. J. (Mr.)
Education Adviser for Africa
The Ford Foundation
320 East 43rd Street
New York City, U.S.A.

10. GEBRE-EGZIABHER, S. (Miss)
Lecturer
Haile Selassie I University
P.O. Box 1176
Addis Ababa, Ethiopia.

11. GILPIN, C. (Mr.)
Research Consultant
International Council for Educational Development
P.O. Box 217
Essex, Conn. 06426, U.S.A.

12. GRABE, S. (Mr.)
Head, Studies and Reports
Section VTB, International Labor Office
International Council for Educational Development
P.O. Box 217,
Essex, Conn. 06426, U.S.A.

13. HARRIS, J. T., Jr. (Mr.)
Regional Representative—African-American Institute
31 Martin Street
Lagos, Nigeria.

14. HOWARD, A. L. (Dr.)
Deputy Director
AFR/TAC Aid
Washington, D.C., U.S.A.

15. IKPEOHA, S. M. (Mr.)
Vice-Principal
Citizenship & Leadership Training Center
P.M.B. 1187
Apapa, Lagos, Nigeria.

16. JACQZ, J. W. (Mrs.)
Corporate Secretary
African-American Institute
866 United Nations Plaza
New York City, N.Y. 10017
U.S.A.

17. KABIGI, J. (Rev.)
Education Officer (Adult Education)
P.O. Box 9121
Dar es Salaam, Tanzania.

18. KELLY, C. S. (Dr.)
College of Education
University of Lagos
Yaba, Lagos, Nigeria.

19. KIRK, J. H. (Dr.)
Chief Education Officer—USAID/Lagos
3 Moloney Street
Lagos, Nigeria.

20. LAAST, W. L. (Mr.)
Civil Servant/Associate Director
Peace Corps (U.S.)
P.O. Box 5796
Accra North, Ghana.

21. LEMAY, A. (Mr.)
UNESCO Consultant
UNESCO Regional Office for Education in Africa
B.P. 3311
Dakar, Senegal.

22. MACHARIA, D. (Mr.)
Assistant Director
Institute of Adult Studies
University of Nairobi
P.O. Box 30197
Nairobi, Kenya.

23. MAGANGA, C. K. (Mr.)
Leadership, Community Development of Women Education
Institute of Adult Education
University of Dar es Salaam
Dar es Salaam, Tanzania.

24. MARTIN, E. L. (Dr.)
Principal Education Adviser
TAC, Africa Bureau, USAID
Department of State
Washington, D.C., U.S.A.

25. NASUTION, A. H. (Mr.)
UNESCO Expert
Institute of African Adult Education
University of Ibadan
Ibadan, Nigeria.

26. ODOKARA, E. O. (Dr.)
Acting Director & State Adviser on Adult Education
Division of Extra Mural Studies & Continuing Education
University of Nigeria
Nsukka, Nigeria.

27. OGUNDARE, J. O. O. (Mr.)
Labor Officer
Federal Ministry of Labor
Independence Building
Lagos, Nigeria.

28. OGUNNIYI, O. (Dr.)
Acting Director
Continuing Education Center
University of Lagos
Yaba, Lagos, Nigeria.

29. OKEDARA, J. T. (Dr.)
Lecturer
Department of Education
University of Ibadan
Ibadan, Nigeria.

30. OKUNGA, D. N. (Mr.)
Director
Center for Continuing Education
Makerere University
P.O. Box 7062
Kampala, Uganda.

31. OPARE-ABETIA, J. (Mr.)
Institute of Adult Education
University of Ghana
Legon, Accra, Ghana.

32. ORORORO, R. A. (Mr.)
Instructor Grade I
Federal Training Center, Lagos
21 Glover Road
Ikoyi, Lagos, Nigeria.

33. OTHMAN, B. (Mr.)
Chef du Service de la Formation Professionnelle
Office Formation Professionnelle et de l'Emploi
35 Rue Charles De Gaulle
Tunis, Tunisia.

34. PETIT, J. F. (Mr.)
Adviser
B.P. 21034
Abidjan, Ivory Coast.

35. RAZANAJOHARY (Mr.)
UNESCO Expert
B.P. 3311
Dakar, Senegal.

36. SSENKOLOTO, G. M. (Mr.)
Principal
Nsamizi Training Center
P.O. Box 92
Entebbe, Kampala, Uganda.

37. SHEFFIELD, J. R. (Dr.)
Program Adviser in Education
African-American Institute
866 United Nations Plaza
New York City, N.Y. 10017
U.S.A.

38. SHEFFIELD, J. W. (Mrs.)
Program Officer
World Education
667 Madison Avenue
New York City, N.Y. 10021
U.S.A.

39. TAY, J. (Mrs.)
Principal Community Development Officer
Department of Social Welfare & Community Development
P.O. Box M 230
Accra, Ghana.

40. TUGBIYELE, E. A. (Professor)
Professor & Director
Continuing Education Center
University of Lagos
Yaba, Lagos, Nigeria.

APPENDIX II

PARTIAL LIST OF PERSONS INTERVIEWED

Mr. A. B. Abaliwano
Director
Management Training and Advisory Center
P.O. Box 4655
Kampala, Uganda

Mr. Richard P. Abrams
Executive Secretary
East African Regional Council for Education
P.O. Box 5869
Nairobi, Kenya

Mrs. Adejare
Executive Director
YWCA
Box 449
Lagos, Nigeria

Mrs. Adesoye
Domestic Science Centre
131 Dolowu Street
Lagos, Nigeria

Mr. M. A. Adeyemi
Nigerian Drivers and Maintenance School
P.O. Box 3663
Mile 11, Ikorodu Road
Lagos, Nigeria

Dr. Ben Mohamed Ben Ahmed
President of Youth Action
Socialist Destorian Party Headquarters
10 Rue de Rome
Tunis, Tunisia

Ato Mesfin Ambatchew
Ethiopian University Service
HSIU
Addis Ababa, Ethiopia

Mr. John Anderson
University of Sussex
United Kingdom

Mr. J. E. A. Assedri
Senior Community Development Officer
Kampala, Uganda

Mr. Kofi-Atiemo
Department of Community Development
Ministry of Youth and Sports
Accra, Ghana

Mr. Attia
Adult Education Department
Ministry of Social Affairs
Boulevard Bab Benat
Tunis, Tunisia

Mrs. Thelma Awori
Department of Continuing Education
Makerere University
Kampala, Uganda

Mrs. Najet Azzouz
Tunisia Women's Union
Boulevard Bab Benat
Tunis, Tunisia

Rev. A. (Buck) Baillie
Christian Rural Service
Box 7046
Kampala, Uganda

Miss Sheila Bagnall
Principal
Swaneng Hill School
Box 101
Serowe, Botswana

Mr. Bill Baraclough
AID Liaison
American Embassy
Lusaka, Zambia

Mr. Peter Barker
Christian Council of Ghana
Box 919
Accra, Ghana

Mr. Becquelin
Project Director
ILO expert (IPAR)
Yaoundé, Cameroon

Mr. Sadok Belhaj
Head of Social Action Branch
Ministry of Social Affairs
Boulevard Bab Benat
Tunis, Tunisia

Mr. C. Bengsten
Director of Bako Project
Swedish Evangelical Mission
Bako, Ethiopia

Dr. Paul Bertelsen
Department of Out-of-School Education
UNESCO
Place de Fontenoy
75 Paris 7ème, France

Mr. Ross Bigelow
The Ford Foundation
Lagos, Nigeria

Mr. George Butler
Partnership for Productivity
Kakamega, Kenya

Mr. Stephen Carr
Box 4
Hoima, Uganda

Mr. Bernard Caron
ILO Expert for Pre-Vocational Training
Office of Vocational Training and Employment
Rades, Tunisia

Mr. J. Roger Carter
University of Dar es Salaam
Dar es Salaam, Tanzania

Mr. Challons
Assistant to Resident Representative
UNDP
Yaoundé, Cameroon

Dr. Robert Chambers
Institute for Development Studies
P.O. Box 30197
Nairobi, Kenya

Dr. David Court
Institute for Development Studies
P.O. Box 30197
Nairobi, Kenya

Mr. David W. Crowley
School of Adult Learning
UBLS, Box 71
Gaborone, Botswana

Mr. Père Dambricourt
Regional Representative for INADES
Maison des Pères
Cite Sic
Yaoundé, Cameroon

Mr. Daouda
Chef
Direction de la Jeunesse
Ministère de la Jeunesse et des Sports
Yaoundé, Cameroon

Mr. Deloye
Technical Adviser
Ministère du Plan
B.P. 675
Yaoundé, Cameroon

Mr. Henry De Witte
Direction de l'Animation Building Administratif
Avenue Roume
Dakar, Senegal

Mr. William A. Dodd
Overseas Development Administration
London, United Kingdom

Miss Alice Dougan
Urban Kampala Grail Team
P.O. Box 16108
Kampala, Uganda

Pères Dubin & Isaac
INADES
B.P. 8008
Abidjan, Ivory Coast

Mr. M. G. Dupuy
Directeur
AFCA
B.P. 4012
Yaoundé, Cameroon

Mr. René Kingue Ebakisse
Chef
Division des Ressources Humaines
Ministère du Plan
B.P. 675
Yaoundé, Cameroon

Mr. Eckhardt
ILO Curriculum Adviser
Lusaka Trades Training Institute
Lusaka, Zambia

Miss Valerie Ferguson
Christian Aid
P.O. Box 1
London SW 1, United Kingdom

Mrs. Helen Fliakos
YWCA
Dar es Salaam, Tanzania

Mr. James Flood
Secretary
National Brigades Coordinating Committee
Ministry of Education
Gaborone, Botswana

Miss Ann Foltz
Radio Voice of the Gospel
Box 654
Addis Ababa, Ethiopia

Mr. Robin Ford
ILO Adviser on Youth
Ministry of Cooperatives and Social Service
Box 30276
Nairobi, Kenya

Mrs. Mary Gaobepe
Women's Programs and Commercial Training
Commission for Technical Education and Vocational Training
Lusaka, Zambia

Mr. W. Gardner
Business Apprenticeship Training Center
c/o Kaduna Polytechnic Institute
Kaduna, Nigeria

Mr. John Gerhart
Ministry of Finance and Economic Planning
Nairobi, Kenya

Mr. Ghadamsi
Department Director for Vocational Training
Office of Vocational Training and Employment
Ministry of Social Affairs
Tunis, Tunisia

Mr. Sven Grabe
Director
Studies & Reports
International Labor Organization
Geneva, Switzerland

Mr. André Grandjean
Directeur
AFCA
B.P. 438
Douala, Cameroon

Mr. Sandy Grant
Botswana Christian Council
Gaborone, Botswana

Mr. Grenville-Grey
Mindolo Ecumenical Foundation
Kitwe, Zambia

Mr. Geoffrey Griffin
Director
National Youth Service
Nairobi, Kenya

Mrs. Haddad
Chargé des Etudes et Equipements Sociaux Scolaires
Ministère du Plan
Abidjan, Ivory Coast

Mr. Bud Hall
Institute of Adult Studies
P.O. Box 20679
Dar es Salaam, Tanzania

Admiral Hansen
National Vocational Training Institute
Accra, Ghana

Mr. Harvey
Head of VSO
British Council Building
Independence Avenue
Dar es Salaam, Tanzania

Mrs. Margaret Hathway
National YWCA
P.O. Box RW 115, Ridgeway
Lusaka, Zambia

Mr. Lee Hauser
Adviser
YMCA
Addis Ababa, Ethiopia

Miss Virginia Hazzard
Ethiopian Womens' Welfare Association
Box 874
Addis Ababa, Ethiopia

Mr. Heuser
Counselor for International Cooperation
American Embassy
Abidjan, Ivory Coast

Sister Hilda
St. Brigid's Social Center
P.O. Box 167
Ibadan, Nigeria

Mr. Philip Hopkins
Director
Institute of Adult Studies
Nairobi, Kenya

Mr. Guy Hunter
Overseas Development Institute
London, United Kingdom

Mr. John Hurd
Coordinator
Kanye Brigade
Kanye, Botswana

Alhaji Isu Hussaine
Ministry of Trade and Industries
Maiduguri, Nigeria

Father Isaac
INADES
B.P. 8008
Abidjan, Ivory Coast

Dr. Hugh Vernon-Jackson
Pro Vice Chancellor
UBLS
Private Bag 22
Gaborone, Botswana

Mr. Philip F. Jones
Extension Programs
Tutume Community College
P.O. Box 2, Tutume, via Francistown, Botswana

Miss Ethel Kabwe
YWCA
Kitwe, Zambia

Mr. Kgarebe
Chief Education Officer
Ministry of Education
Gaborone, Botswana

Malam Mugaji Katsina
Business Apprenticeship Training Center
c/o Kaduna Polytechnic Institute
Kaduna, Nigeria

Mr. Joseph N. Kawuki
Commissioner of Community Development
Ministry of Community Development and Culture
Kampala, Uganda

Ato Abebe Kebede
Administrator General
HSI Foundation
P.O. Box 704
Addis Ababa, Ethiopia

Mr. Kibera
Senior Education Officer (Adult Education)
Ministry of National Education
Dar es Salaam, Tanzania

Dr. J. Kreysler
Director
Lushoto Integrated Development Project
P.O. Box 60
Soni, Tanzania

Mr. A. Krichene
Department of Human Resources
AID
Tunis, Tunisia

Mr. Robert Lagamma
Cultural Affairs Officer
USIS
Abidjan, Ivory Coast

Mr. William Laast
c/o U.S. Peace Corps
Accra, Ghana

Dr. Wilbert LeMelle
The Ford Foundation
Box 1081
Nairobi, Kenya

Professor John Lewis
University of London
Institute of Education
Malet Street
London WC 1E, 7HS, United Kingdom

Mrs. Lomdan
Directrice
Centre de Perfectionnement Audio-Visuel
Abidjan, Ivory Coast

Professor John Lowe
Department of Educational Studies
University of Edinburgh
11 Buccleuch Place
Edinburgh EH8, 95T, Scotland

Mrs. Dorcas Luseno
Chief Executive Officer
Kenya National Council of Social Service
Box 7628
Nairobi, Kenya

Mr. David Macharia
Institute of Adult Studies
Nairobi, Kenya

Miss Virginia Makins
Times Educational Supplement
Printing House Square
London EC4, United Kingdom

Mr. Makunike
African Literature Center
Mindolo Ecumenical Foundation
Box 1493
Kitwe, Zambia

Mr. Richard Malotle
Coordinator of Lobatse Youth Training Centre
Lobatse, Botswana

Mrs. Rose Mancell
Mancell's Girls' Vocational Institute
Kumasi, Ghana

Mr. E. M. Masale
Senior Youth Officer
Ministry of Cooperatives and Social Service
Box 30276
Nairobi, Kenya

Mr. Mbakile
Evaluation Specialist
UNDP/UNESCO
Work-Oriented Literacy Project
Mwanza, Tanzania

Mr. Bard McAllister
Chawama Self-Help Housing Project
P.O. Box 97
Lusaka, Zambia

Mr. Robert McGrath
Special Youth Employment and Training Programs
International Labor Organization
Geneva, Switzerland

Mr. Melvin
Director
Centre de Formation Professionnelle de Poids Lourds
Abidjan, Ivory Coast

Mr. Mepham
United Africa Company
Niger House
Marina, Lagos, Nigeria

Mr. Meyonga
Department of Science Research
Ministère du Plan
Yaoundé, Cameroon

Mr. Washington Meswele
Commissioner of Community Development
Private Bag 6
Gaborone, Botswana

Mr. and Mrs. Jason Mfula
Mindolo Ecumenical Foundation
P.O. Box 1493
Kitwe, Zambia

Mr. Paul Mhaiki
Director
Institute of Adult Studies
P.O. Box 20679
Dar es Salaam, Tanzania

Rev. John Mockford
Pro. Office
Church of Uganda
Uganda

Mr. and Mrs. Peter Moock
Institute for Development Studies
University of Nairobi
P.O. Box 30197
Nairobi, Kenya

Mr. Bias Mookodi
Permanent Secretary
Ministry of Education
Gaborone, Botswana

Mr. Joseph Moulela
Directeur
Adjoint ZAPI
B.P. 4083
Yaoundé, Cameroon

Mr. Mpogolo
National Deputy Director
UNDP/UNESCO
Work-Oriented Literacy Project
Mwanza, Tanzania

Mr. & Mrs. Murray (VSO)
Nutrition Division
Department of Agriculture
Dar es Salaam, Tanzania

Mr. Mutugi
Assistant Commissioner of Labour
Ministry of Labour
Nairobi, Kenya

Mr. Mwandia
Adult Education Division
Ministry of Cooperatives and Social Service
P.O. Box 30276
Nairobi, Kenya

Ato Million Neq Neq
Minister of State
Ministry of Education and Fine Arts
Addis Ababa, Ethiopia

Ato Neway
Director of Adult Education and Literacy
Ministry of Education and Fine Arts
Addis Ababa, Ethiopia

Mr. P. Nyang'oro
Secretary for Relief and Service
Christian Council, Luther House
Dar es Salaam, Tanzania

Mr. Robert Oakeshott
Principal
Shashi River School
Shashi River, Botswana

Mr. G. A. Ogurinde
Ministry of Trade and Industries
Ibadan, Nigeria

Dr. O. Okedara
Institute of Adult Education
University of Ibadan
Ibadan, Nigeria

Dr. Daniel N. Okunga
Director
Center for Continuing Education
Makerere University
Kampala, Uganda

Mr. Lamek Oqwal
Senior Youth Officer
Ministry of Community Development and Culture
Kampala, Uganda

Mr. Oyelohonu
Industrial Development Center
Zaria, Nigeria

Mr. Jean-François Petit
Directeur
Accueil et Promotion
Ministère d'Enseignement Technique et de Formation Professionelle
Abidjan, Ivory Coast

Mr. John Phillips
Director
UNDP
Gaborone, Botswana

Mr. David Phiri
Anglo-American Corporation
Lusaka, Zambia

Dr. Arthur Porter
UNESCO Team
Ministry of Education
P.O. Box 30040
Nairobi, Kenya

Mr. Russ Pratt
U.S. Peace Corps
Gaborone, Botswana

Mr. R. Prosser
Adult Education Adviser
Overseas Development Administration
Eland House, Stag Place
London, United Kingdom

Dr. Seyoum Selassie
Dean
School of Social Work
Haile Selassie I University
Addis Ababa, Ethiopia

Dr. N. O. H. Setidisho
Secondary Education
Ministry of Education
Gaborone, Botswana

Mr. Leroy Smith
The Ford Foundation
Tunis, Tunisia

Mr. David Sogge
YMCA
Dar es Salaam, Tanzania

Mr. G. B. Stapelton
Pan-African Institute for Development
Buea, West Cameroon

Mr. Bruce Stedman
UNDP
Electricity House
Nairobi, Kenya

Brother Hugh Sullivan
Ngashira & Partners Ltd.
Kaimosi, Kenya

Dr. Summers
Industry and Commerce
Mindolo Ecumenical Foundation
Kitwe, Zambia

Mrs. Janet Tay
Commission of Community Development
Accra, Ghana

Mr. Tklemarian Tedler
Department of Manpower Development and Training
Ethiopian Airlines
Addis Ababa, Ethiopia

Mr. Merfyn M. Temple
Ministry of Rural Development
Mulungushi House
Box R.W. 197
Lusaka, Zambia

Mr. Charles Tett
Intermediate Technology Development Group Ltd.
9 King Street, Convent Garden
London WC 2, United Kingdom

Mr. Henderson Tlhoiwe
Principal of Mochudi Brigade
Mochudi, Botswana

Mr. Abdu Tofa
Farm Training Center
Ministry of Agriculture
Kano, Nigeria

Dr. T. Tucker
Africa Department
National Council of Churches
475 Riverside Drive
New York, New York 10027, USA

Mr. Patrick Van Rensburg
Coordinator
Swaneng Hill School
Box 101
Serowe, Botswana

Mr. Velti
Director
Centre National de Promotion des Entreprises Cooperatives (CENAPEC)
Bingerville, Ivory Coast

Mr. M. F. Vincent
Secrétaire Général
Institut Pan-Africain pour le Développement
B.P. 4078
Douala, Cameroon

Mr. N. Y. Vishnyakov
Chief Technical Adviser
Tanzanian Functional Literacy Project
P.O. Box 1141
Mwanza, Tanzania

Mr. L. Vronen
Institut Pan-Africain pour le Développement
Douala, Cameroon

Mr. David Waterhouse
3 Graham Avenue
St. Austell
Cornwall, England

Mr. J. Rigby-Williams
Chief
Social Welfare Section
ECA
P.O. Box 3001
Addis Ababa, Ethiopia

Mr. Wood
Director
Kalalushi Farm College
c/o Mindolo Ecumenical Foundation
Box 1493
Kitwe, Zambia

Mr. Akra Yao
Directeur du Projet d'Education avec BIRD
Ministère d'Education Nationale
Abidjan, Ivory Coast

Mr. Yebio
Mindolo Ecumenical Foundation
Box 1493
Kitwe, Zambia

Ato Mbrahtu Yohannes
Legal Adviser
Ministry of National Community Development and Social Affairs
Addis Ababa, Ethiopia

Mr. Ahmed Ben Younes
Head of Agriculture Extension Branch
Ministry of Agriculture
3 Rue de Hollande
Tunis, Tunisia

APPENDIX III

This bibliography, with accompanying material, was compiled by Clifford Gilpin of Teachers College, Columbia University and of the International Council for Education Development.

I. Major Technical Assistance Agencies in African Development

A. International Agencies

Food and Agriculture Organisation (FAO), Rome.
International Labour Organisation (ILO), Geneva.
United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris.
United Nations Children's Emergency Fund (UNICEF), New York.
World Health Organisation (WHO), Geneva.

B. Bilateral Agencies

Agricultural Missions Inc., New York.
Bureau pour le Développement de la Production Agricole (BDPA), Paris.
Canadian International Development Agency, Ottawa.
Christian Aid, London.
Danish International Development Agency, Copenhagen.
The Ford Foundation, New York.
Kooperativa Forbundet, Stockholm. (Aids the development of cooperative training in Africa.)
Intermediate Technology Development Group Limited, London.
National Council of the Churches of Christ, New York.
Swedish International Development Agency, Stockholm.
Tanzania Nordic Project, Ministry of Foreign Affairs, Copenhagen.
Technoserv Inc., Greenwich, Connecticut, U.S.A.
United Kingdom Overseas Development Administration, London.
United States Agency for International Development, Washington, D.C.
World Neighbors, Oklahoma City, Oklahoma, U.S.A.

II. Major Research Centers in African Education and Development

A. International

International Council for Educational Development, New York.
International Institute for Educational Planning, Paris.
International Institute of Rural Reconstruction, New York.
International Organization of Rural Development, Brussels.
UNESCO Institute for Education, Hamburg.
United Nations Economic Commission for Africa, Addis Ababa.

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B. National and Private

Agricultural Development Council Inc., New York.

Center for Education in Africa, Teachers College, Columbia University, New York.

Center for Educational Research and Innovation, Paris.

Institute for Commonwealth Studies, Oxford, England.

Consortium for the Study of Nigerian Rural Development, Michigan State University, East Lansing, Michigan, U.S.A.

Institute of Adult Education, University of Dar es Salaam, Dar es Salaam, Tanzania.

Institute of Development Studies, University of Nairobi, Nairobi, Kenya.

Institute of Development Studies, University of Sussex, Brighton, England.

Institute for Technical Research Assistance, Vienna.

Makerere Institute of Social Research, University of Makerere, Kampala, Uganda.

Max-Planck Institute, Berlin.

New Zealand Council for Educational Research, Wellington, New Zealand.

Nigerian Institute of Social and Economic Research, Ibadan, Nigeria.

Overseas Development Institute, London.

Stanford International Development Education Center, School of Education, Stanford University, Stanford, California, U.S.A.

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Leagans, J. P. *India's Experience with Training in Extension Education and Community Development.* New York: Ford Foundation, 1961. A review of work undertaken to train rural development personnel and of problems encountered in extension work.

Lerner, D. and Schramm, W. *Communication and Change in the Developing Countries.* Honolulu: East-West Center Press, 1967. Part III contains case studies from India, Mainland China and the Philippines.

Lynton, Rolf Paul. *The Tide of Learning: The Aloka Experience.* Incorporation of a study carried out under the UNESCO system of Associated Youth Enterprises. London: Routledge and Kegan Paul, 1960. A description of a unique experiment in training community leaders in Mysore, India.

Lyons, Raymond F. *Problems and Strategies of Educational Planning: Lessons from Latin America.* Paris: UNESCO/IIEP, 1965. Chapter Four deals particularly with rural and agricultural education.

Malassis, L. *Economic Development and the Programming of Rural Education.* Paris: UNESCO, 1966. Includes a chapter on the foundations of a successful educational program for rural development.

Menkerios, Haile. *Agricultural Extension Service: A General Overview.* Draft paper prepared for the International Council for Educational Development, July 1971. A good synthesis of different extension approaches with consideration of their weaknesses and potentials.

Mobile Trade Training Units: 1969 Report. Bangkok: Vocational Department of Vocational Education, 1970. A report on the objectives, operation and budget of an innovative program to provide vocational training for youth.

Mosher, A. T. *Getting Agriculture Moving.* Published for the Agricultural Development Council. New York: Praeger, 1966. A good discussion that examines the production process and the essentials for agricultural development. Part III includes chapters on agricultural education and community development.

Mukerji, B. *Community Development in India.* Bombay: Orient Longmans, 1961. A detailed description of all aspects of the community-development program in India in the 1950's.

Musto, Stefan A. *Massenmedien als Instrumente der Ländlichen Entwicklungsforderung.* Berlin: Verlag Bruno Hessling, 1969. An excellent evaluation of Radio Suta Tensa, Colombia, the largest mass-media program for rural development in Latin America.

Nair, K. *Blossoms in the Dust.* London: Gerald Dutchworth, 1961. A powerful and compelling description, from a journalist, of the impact of planned development on the economic attitudes and value systems of rural communities in India.

Non-Formal Alternatives to Schooling: A Glossary of Educational Methods. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1971. A very useful compilation of alternatives to the "schooling" model divided into five categories: individualization strategies, education and work, community-based learning, technology centered and attitude-change oriented.

Phillips, H. M. *Literacy and Development.* Paris: UNESCO, 1970. A monograph that presents the viewpoint of UNESCO on the role of literacy in economic and social development.

Platt, William J. *Education by Television Satellite in Developing Countries,* No. 49 in The Fundamentals of Educational Planning: Lecture-Discussion Series. Paris: UNESCO/IIEP, January 1970. Looks at the implications and potential of this type of education, with comparisons between India and Latin America.

Roy Prodipto et al. *Agricultural Innovation among Indian Farmers.* Hyderabad: National Institute of Community Development, May 1968. A study of agricultural innovation in relation to extension and the economic setting.

Ruapp, Phillipps (ed.). *Approaches to Community Development.* Symposium Introducing Problems and Methods of Village Welfare in Underdeveloped Areas. The Hague: Van Hoeve, 1953. A comprehensive series of articles.

Schramm, Wilbur. *Mass Media and National Development.* Stanford, California: Stanford University Press, 1964. Examines the role of mass media in promoting economic and social progress in developing countries. A study commissioned by UNESCO.

Schultz, T. W. *Transforming Traditional Agriculture.* New Haven: Yale University Press, 1964. A good analysis. The last 32 pages describe previous contributions to the role of education in economic development in low-income countries. Emphasizes the economic rationality of traditional farmers and discusses the contribution of farmer education in this context.

Shaw, Robert. *Jobs and Agricultural Development.* Washington, D.C.: Overseas Development Council, 1970. A monograph that examines the employment implications of different types of agricultural development. Chapter VII comprises a rural employment strategy.

Shields, James J. *Education in Community Development: Its Function in Technical Assistance.* New York: Praeger, 1967. Describes the role of education in the programs supported by U.S. AID and proposes that there are educational dimensions additional to formal education, literacy training and fundamental education.

South-East Asia Development Advisory Group. *Report of a Seminar on New Strategies for Educational Development: Non-formal Alternatives,* Washington, D.C., May 1971. New York: SEADAG, 1971, mimeo.

Staley, Eugene. *Planning Occupational Education and Training for Development.* An occasional paper of Stanford International Development Education Center. Stanford, California: School of Education, Stanford University, 1967. Mainly deals with artisans-training, including on-the-job training.

Thiesenhusen, William C. *Chile's Experiments in Agrarian Reform.* Land Economics Monographs No. 1. Milwaukee: University of Wisconsin Press, 1966. A study of resettlement schemes and cooperatives with a concluding chapter on the general implications of agrarian reform.

Training of Village Artisans in Bihar. Report of the Working-cum-Production Centres under Rural Arts and Crafts Programme in the Rusa-Samasitour-Shakra Project, Bihar. Delhi: India Planning Commission, 1955. A description of India's program for development of cottage industry.

Turnham, David. *The Employment Problem in Less Developed Countries.* Paris: OCED, June 1970, mimeo. A lengthy review of the evidence on unemployment, including chapters on different categories of unemployment and underemployment, and on income distribution, nutrition and working efficiency.

Social Research and Problems of Rural Development in South-East Asia. Paris: UNESCO, 1963. Eighteen papers on agricultural extension and community-development work in Asia.

Manpower Aspects of Educational Planning. Paris: UNESCO/IIEP, 1968. The report of a symposium that includes papers and discussions on the unemployed school-leaver and rural development by experts such as Dumont, Hunter and Gallaway.

International Commission on the Development of Education. *Series of Studies;* Series A: Situation; Series B: Opinions; Series C: Innovations.

Assignment Children. Paris: UNICEF, June 1968. A collection of articles on out-of-school education for youth and the role of youth in development. The second part comprises examples of youth education and development programs.

Educational Technology and the Developing Countries, unpublished draft, 1970. Brief case studies on the use of educational television in Niger, El Salvador and Samoa. No costs given. Guidelines for the adoption of new educational technology as part of comprehensive educational reform. Includes an appendix on sources of information, assistance, materials and equipment, and a bibliography.

Van Doren, A. B. (ed.). *Fourteen Experiments in Rural Education: Some Indian Schools Where New Methods are Being Tested.* London: Student Christian Movement, 1928. Still very pertinent.

VI. Annotated Bibliography—Africa

A. Books

African Education: A Study of Educational Policy and Practice in British Tropical Africa. Produced on behalf of the Nuffield Foundation and the Colonial Office. Oxford: Oxford University Press, 1953. A good summary of British educational policy in Africa. Includes sections on informal and adult education and the education of women and girls.

Burns, Donald C. *African Education.* London: Oxford University Press, 1965. A general survey that includes a chapter on further education.

CESO-Center for the Study of Education in Changing Societies. *Primary Education in Sukumaland.* Groningen, The Netherlands: Wolters-Nordhott Publishing, 1969. A study of primary education in Mwanza District, Tanzania that examines school and society and their relationship. See Dubbeldam.

Chambers, Robert, *Settlement Schemes in Tropical Africa.* New York: Praeger, 1969. An analysis of several settlement schemes, and of the Mwea scheme in Kenya in particular, with conclusions concerning implications. Includes a useful bibliography.

Clayton, Eric S. *Agrarian Development in Peasant Economies: Some Lessons from Kenya.* Oxford: Pergamon Press, 1964. Looks at the constraints on agricultural development and at a number of aspects of agrarian reform, using Kenya as an example.

Coles, Edwin T. *Adult Education in Developing Countries.* Oxford: Pergamon Press, 1969. An overview with useful suggestions on the administration and organization of adult education in Africa.

Comité Malgache pour la Campagne Mondiale contre la Faim. *Aménagement de Terrains de Cultures dans le Village d'Ambobimanjaka.* Tananarive: Malagasy Republic, Ministry of Agriculture, February and March 1971. Illustrated with photographs, these two books give a good idea of the French approach to rural development—"animation rurale."

Cutting, C. U. *Tanzania: Agricultural Education.* Paris: UNESCO, March 1967. A survey of the different approaches to agricultural education employed in Tanzania.

deWilde, John C. et al. *Experiences with Agricultural Development in Tropical Africa.* Baltimore: Johns Hopkins Press, 1967. Volume I: The Synthesis. Volume II: Case Studies. Volume I is a valuable summary of the conclusions of a number of major development economists on agricultural development based on field investigations in 13 areas of Africa and their own wide experience.

Dubbeldam, L. F. B. *The Primary School and the Community in Mwanza District, Tanzania.* Groningen, The Netherlands: Wolters-Noordhott Publishing, 1970. A study of primary education in Mwanza District that examines the school and the society and their relationship See CESO.

Dumont, René. *False Start in Africa.* New York: Praeger, 1966, revised edition, 1969. An analysis of the economic problems of Africa. Dumont emphasizes the need for agricultural reform as the basis of development. He gives practical suggestions on the organization of cooperatives, development of farm schools, etc.

Du Sautoy, Peter. *Community Development in Ghana.* London: Oxford University Press, 1958. A good description of how a fairly typical community development program—involving mass literacy projects, women's education and village project work—operated in the 1950's in one former British African colony.

Foster, Philip. *Education and Social Change in Ghana.* Chicago: University of Chicago Press, 1965. An analysis of education in Ghana in the colonial period which provides some important insights into the attitudes and expectations of the society and students it was meant to serve.

Fufunwa, Babs. *New Perspectives in African Education.* Lagos: Macmillan Nigeria Ltd., 1970. A reexamination of needs and policies in African education by a prominent Nigerian educator.

Gaitskell, Arthur. *Gezira: A Story of Development in the Sudan.* London: Faber and Faber, 1959. A full description and analysis of the famous Gezira settlement scheme and rural-development program.

Griffiths, Vincent L. *Experiment in Education: Account of an Attempt to Improve the Lower Stages of Boys' Education in Moslem Anglo-Egyptian Sudan 1930–1950.* London: Longmans, 1953. An account of one attempt to adapt the formal education system to rural needs in the colonial period.

Gwilliam, Freda H. and Read, Margaret. *Report on Education of Women and Girls in Nyasaland.* Zomba: Government Printer, 1947. An example of colonial and mission efforts in former British Africa.

Heijnen, J. D. *Development and Education in Mwanza District.* Rotterdam: Brander-Offset, 1968. A case study of migration and peasant farming, with an attempt to look at factors other than economic and to say something about school-leaver attitudes. One chapter describes the Bukumbi credit union and the Usagara block cultivation scheme.

Hunter, Guy. *The Best of Both Worlds?* New York: Oxford University Press, 1967. An examination of the problem of economic growth and employment, with emphasis on the need for low-base rural development. The chapter on education puts its main emphasis on the adult producer.

Jackson, I. C. *Advance in Africa: A Study of Community Development in Eastern Nigeria.* London: Oxford University Press, 1956. A good, popular account by the former principal of the Community Development Training Centre at Agwy, Eastern Nigeria.

Jolly, Richard. *Planning Education for African Development.* Nairobi: East African Publishing House, 1969. A comparative study of educational planning in a number of African countries, highlighting basic manpower problems.

Lewis, L. J. (ed.). *The Phelps-Stokes Reports on Education in Africa.* London: Oxford University Press, 1962. A modern, edited version of the Phelps-Stokes Reports of the 1920's which reprints the major chapters relating to the need for the adaptation of the formal school system to practical needs.

Marris, Peter and Somerset, Anthony. *African Businessmen: A Study of Entrepreneurship and Development in Kenya.* London, 1971.

Mass Education in African Society. London: HMSO, 1945. Represents a major educational policy statement on adult education by the British Colonial Education Department.

Murray, A. Victor. *The School in the Bush: A Critical Study of the Theory and Practice of Native Education in Africa.* New York: Longmans Green and Company, 1929. An early classic. Argues that the content of education is too literary and needs to be adapted to practical needs of rural Africa.

Mwanakatwe, J. M. *Growth of Education in Zambia since Independence.* Lusaka: Oxford University Press, 1969. A general survey including chapters on technical, vocational and adult education.

Nekby, Bength. *CADU: An Ethiopian Experiment in Developing Peasant Farming.* Stockholm: Presina Publishers, 1971. An excellent short description and evaluation of the Swedish-assisted integrated development project in Ethiopia in the period 1967–1970. A good example of education as a small component of a broadly conceived development project

Nyerere, Julius K. *Ujamaa: Essays on Socialism.* New York: Oxford University Press, 1968. Represents an attempt of major importance to integrate political and economic policy. Emphasizes adult education and community development in the rural areas as the African socialist answer to development.

Pauvert, Jean-Claude. *Etude sur les Tendances Actuelles de l'Education des Adultes dans les Etats Africains d'Expression Française.* Paris: Presses Universitaires de France, 1962. A study of adult education in French-speaking Africa.

Prosser, Ray. *Adult Education for Developing Countries.* Nairobi: East African Publishing House, 1967. Provides one set of suggestions for the organization and planning of adult education at the national level, and for the content and methods which might be incorporated and used.

Resnick, Idrian (ed.). *Tanzania: Revolution by Education.* Arusha: Longmans of Tanzania Ltd., 1968. A collection of essays on education in Tanzania centered on Nyerere's political and educational ideas and including his statement, "Education for Self-Reliance."

Ruthenburg, Hans (ed.). *Smallholder Farming and Smallholder Development in Tanzania.* London: C. Hurst and Company, 1968. Case studies of agricultural development in different areas, including cooperative

farming. Includes a bibliography of other studies in Africa sponsored by the Institut Für Wirtschaftsforschung.

Thompson, T. D. *Domasi Community Development Scheme,* 1949–1954. Zomba: Government Printer, 1955. Written by the officer in charge of the scheme, which had no purely cash crop but some labor export. Includes an account of "Kwala" schools which are mass education centers.

B. *Seminar and Conference Reports*

After School What? A report prepared by the joint working party of the Youth Department of the Christian Council of Kenya and the Christian Church Educational Association on Further Education, Training and Employment of Primary-School-Leavers. Nairobi: Ministry of Health, March 1966. Identifies the "gap" between leaving primary school and the possibility of adult employment and recommends the establishment of Village Polytechnics to provide low-cost training in practical, money-earning skills for self-employment.

Education in Rural Areas. Report of the Commonwealth Conference on Education in Rural Areas, held at the University of Ghana, March 23–April 2, 1970. London: Commonwealth Secretariat, 1970. An excellent survey of the needs and problems of the rural areas with description and discussion of a wide variety of non-formal educational alternatives.

Agricultural Education and Training in Africa. Report of a seminar at Ahmadu Bello University, Northern Nigeria, July 1965. Rome: FAO, 1965. A broad survey that recommended that member countries give high priority to agricultural education and training. Suggested mainly ideas related to institutionalized training. Some attention given to the importance of women's education.

Farmer Training in East Africa. Report of a seminar held in Kenya at Egerton College, March 1965. Rome: FAO, 1966. A comprehensive report of the organization and activities of the Farmer Training Centers in Kenya and Uganda.

Hunter, A. P. and Turner, J. D. (ed.). *Educational Development in Predominantly Rural Areas.* Proceedings of a seminar held at the University of Botswana, Lesotho and Swaziland. Roma, June 1968. A number of valuable articles, especially on curriculum by Van Rensburg, on the development of agriculture and the role of youth movements.

Noak, Hans (ed.). *Use of Mass Media in the Education of Adults.* Report of a conference held at Evelyn Hone College of Further Education, Lusaka, Zambia. Lusaka: Evelyn Hone College, 1965. A useful report.

Promotion of Balanced Development in Rural and Urban Areas. African Advisory Committee, Yaounde, July–August 1971. Geneva: ILO, 1971. A useful report constituting the first step in the elaboration of a strategy of rural development in Africa.

Sheffield, James R. (ed.). *Education, Employment and Rural Development.* The proceedings of a conference held at Kericho, Kenya in September 1966. Nairobi: East African Publishing House, 1967. An attempt to discuss education in the larger social and economic framework of rural development and to bring an interdisciplinary approach to bear on the subject. The papers are wide-ranging but policy-oriented.

United Nations. *Report of the Interregional Seminar on National Youth Service Programmes,* Denmark, November 1968. New York: United Nations, 1969. A useful report, with papers submitted by consultants, on the role of the National Youth Service, mainly in Africa.

UNESCO. *Final Report of the Conference of African States on the Development of Africa,* 1961. Paris: UNESCO, 1961. A plan for African educational development drawn up by the delegates of African states at the 1961 Addis Ababa Conference, which states the priorities of African governments. Includes background papers by Arthur Lewis and Frederick Harbison.

UNESCO. *Report of International Advisory Committee for Out-of-School Education.* Paris: UNESCO, March 1968. Summarizes current questions and trends in adult education and outlines a UNESCO program for the future.

UNESCO. *Report on Meeting on Youth Employment and National Development in Africa,* Niamey, Niger, May 21–30, 1968. Paris: UNESCO, July 1968. Recommendations include proposals concerning post-primary practical training and on-the-job training.

Watts, E. R. (ed.). *New Hope for Rural Africa.* The proceedings of a conference held at the Social Centre, Kikuyu, Kenya in September 1967. Nairobi: East African Publishing House, 1969. A good example of the current role of the churches and other voluntary agencies in African education and rural development.

Widstrand, Carl G. *Development and Adult Education in Africa.* Report of the seminar sponsored by the Scandinavian Institute of African Studies, October 1965. Looks at the role of adult education from a variety of viewpoints.

Widstrand, Carl G. (ed.). *Cooperatives and Rural Development in East Africa.* Report of a seminar organized by the Scandinavian Institute of African Studies, Uppsala, May 1970. New York: Africana Publishing Company, 1970. Has little to say specifically about training or education, but emphasizes the potential role and problems of marketing cooperatives in rural development.

Youth and Development in Africa. The Report of the Commonwealth Africa Regional Youth Seminar, Nairobi, November 1969. London: Commonwealth Secretariat, 1970. A detailed examination of the problems of school-leavers and of youth training programs with a comprehensive list of recommendations and suggestions related to training and the solution of the school-leaver problem.

C. *Articles and Monographs*

Anderson, John. "The Adolescent in the Rural Community" in Sheffield, J. R. (ed.) *Education, Employment and Rural Development*. Nairobi: East African Publishing House, 1967. Gives some new insights into the attitudes, preferences and occupations of primary-school-leavers.

Anderson, John. *The Organisation and the Financing of Self-Help Education in Kenya*. A paper presented to a seminar on The Strategy of Educational Financing, Paris. November 1970. Paris: IIEP, October 1970. Although it deals with Harambee secondary schools in Kenya, it is a useful analysis of local and private financing of education in Kenya.

Apthorpe, Raymond (ed.). *Nkanga Editions No. 3*. Kampala: Transition Books Ltd., 1968. Valuable articles on a number of settlement schemes in East Africa, including Nyakashaka. There is also a general evaluation of settlement-scheme performance by Jon Moris.

Barwell, C. W. *A Preliminary Report of a Survey of District Farm Institutes in Uganda*. Rome: FAO, August 1969. A good detailed description, with accompanying statistics, of the operation of the Uganda centers for training adult farmers.

Barwell, C. W. *A Report of a Survey of Rural Training Centres in Tanzania*. Rome: FAO, December 1969. A companion report to the one on Uganda above.

Batchelor, Peter. "Faith and Farm," A Community Oriented Rural Project in *Youth and Development in Africa*. London: Commonwealth Secretariat, 1970, pp. 186–194. A description of a church extension and training program in Northern Nigeria organized in the form of an agricultural apprenticeship.

Bath, W. and Oluwadiya, A. "A Farm Settlement Scheme in Western Nigeria," *Bulletin of Rural Economics and Sociology*, II, 1, 1966, pp. 15–26 A brief description of an effort to train youth to be successful farmers on settlement schemes.

Bertelsen, P. H. "Folk High Schools for West Africa," *International Development Review*, II, 3, October 1961, pp. 28–31. Argues the case for a program of adult education through Danish-type folk high schools of a residential nature, with instruction conducted in the vernacular.

Bradford, E. L. "Bukuru Native Agriculture School, Nyanza Province, Kenya," *East African Agriculture Journal*, XI, 3, January 1946, pp. 162–4. A description of an early attempt to provide residential training for adult farmers.

Callaway, Archibald. "New Perspectives on Youth Employment Problems in African Countries," *Youth and Development in Africa*. London: Commonwealth Secretariat, 1970, pp. 89–110. An analysis of policy options that sets out some relevant principles and priorities in youth training.

Carr, Stephen. "The School-Leaver Problem," in Watts, E. R. (ed.) *New Hope for Rural Africa.* Nairobi: East African Publishing House, 1969, pp. 41–48. A description of the Nyakashaka settlement scheme for school-leavers in Western Uganda.

Church, Michael A. "Extension by Health Centres," in Watts, E. R. (ed.) *New Hope for Rural Africa.* Nairobi: East African Publishing House, 1969, pp. 69–79. A description of community development by the Luteete maternity and child health center, Uganda.

Dodd, William A. "Education for Self-Reliance," in Tanzania: A Study of its Vocational Aspects. New York: Teachers College Press, 1969. A realistic appraisal that emphasizes the importance of avoiding the weaknesses in experiments in practical education that were made in the 1950's and the need to back up school reform with the creation of modernizing conditions and attitudes in rural village communities.

Duggen, Hayden A. "The Village Polytechnic in Kenya," *Rural Africana,* No. 9, 1971, pp. 40–48. A report on the organization and activities of one village polytechnic in Kenya, with an attempt to generalize from this experience.

Eicher, Carl et al. *Employment Generation in African Agriculture.* East Lansing: Institute of International Research, Michigan State University, July 1970. An analysis of the causes of unemployment that suggests modifications in the present policies for employment generation.

Fangeyrollas, P. et al. *L'Education des Adultes en Sénégal.* Monographes Africaines, No. 11. Paris: UNESCO/IIEP, 1967. A survey of adult education in Senegal.

Fordham, Paul and Sheffield, James R. "Continuing Education for Youth and Adults," in Sheffield, J. R. (ed.) *Education, Employment and Rural Development.* Nairobi: East African Publishing House, 1967, pp. 366–389. Argues that the responsibility for continuing education should be coordinated and centralized. Recommends a two-year course stressing practical skills for primary-school-leavers.

Fowler, John P. "Practical Training Farming," in Watts, E. R. (ed.). *New Hope for Rural Africa.* Nairobi: East African Publishing House, 1969, pp. 84–89. A description of the Berea Farm Apprenticeship scheme in Kenya.

Griffin, G. W. "The Role of National Youth Services," in *Youth and Development in Africa.* London: Commonwealth Secretariat, 1970. An attempt to evaluate the role of national youth services in development in many African countries. A suggested program is outlined.

Griffiths, Vincent L. "Education of the Young in Rural Areas," in Sheffield, J. R. (ed.) *Education, Employment and Rural Development.* Nairobi: East African Publishing House, 1967, pp. 307–321. An assessment of the contribution of rural primary schools giving a general education to the promotion of rural development.

Holmberg, Arne. "Local Cooperative Education in Tanzania," in *African Adult Education*, March 1968. A description of an innovative program of broad cooperative education by the former director of the Cooperative Education Center in Tanzania.

Hunter, Guy. "Education, Employment and Rural Development," in Sheffield, J. R. (ed.). *Education, Employment and Rural Development*. Nairobi: East African Publishing House, 1967, pp. 35–53. A good analysis of the problems and the possible approaches to their solution.

Hunter, Guy. *Manpower, Employment and Education in the Rural Economy of Tanzania*. IIEP Monograph No. 9. Paris: UNESCO/IIEP, 1966.

Kincaid, James et al. *Extension Priorities: A Critical Analysis of Selected Extension Questions and Issues for Nigeria*. East Lansing Consortium for the Study of Nigerian Rural Development, Michigan State University, July 1968. An analysis of a variety of agricultural extension and settlement schemes with data on the personal characteristics of respondents.

King, Jane. *Planning Non-Formal Education in Tanzania*. IIEP Monograph No. 16. Paris: UNESCO/IIEP, 1967. Summarizes the efforts at nonformal education in Tanzania and argues for greater coordination of individual programs.

Markham, A. E. G. *A Study of Farmer Training in Some English-Speaking Countries of Africa*. Rome: FAO, 1967. A good descriptive survey of residential farmer training, mainly in East Africa.

Mbilinyi, Marjorie. *The Education of Girls in Tanzania*. Dar es Salaam: Institute of Education, University College, 1969. One of the few studies that examines attitudinal and socioeconomic factors acting as barriers to the education of girls. Advocates closer school-community ties to overcome these.

McLoughlin, Peter. *Research on Agricultural Development in East Africa*. New York: Agricultural Development Council, 1967. Outlines general problems and lists seven priority research problems, with a suggested research inventory for East Africa.

Meliczek, Hans. "Selection of Settlers for a Land Settlement Scheme," in *Land Reform/Land Settlement and Cooperatives*, No. 1. Rome: FAO, 1969. Includes observations on the failure of agricultural courses required of potential settlement-scheme farmers in various African countries.

Moris, Jon. "Farmer Training as a Strategy of Rural Development," in Sheffield, James R. (ed.). *Education, Employment and Rural Development*. Nairobi: East African Publishing House, 1967, pp. 322–65. Very useful proposals regarding objectives, implementation and timing of programs in agricultural extension.

Morris, Rodney S. "Extension by Churches" in Watts, E. R. (ed.) *New Hope for Rural Africa*. Nairobi: East African Publishing House, 1969, pp. 59–64. A description of the Rural Service Programme low-key agricultural extension, of the Friends in Western Kenya.

Mostefaoui, A. and Ader, J. *Upper Volta: Evaluation of a System of Rural Education.* Paris: UNESCO, April 1968. Explains the weaknesses and problems of a scheme of rural schools that parallels the primary-school system. The UNESCO mission advised against such separate systems, but it is a unique experiment in the search for a low-cost and practical alternative to the formal primary school.

Mueller, P. and Zevering, K. H. "Employment Promotion through Rural Development: A Pilot Project in Western Nigeria," in *International Labor Review*, Vol. 100, No. 2, August 1969, pp. 111–130.

Neisser, C. S. "Community Development and Mass Education in British Nigeria," *Economic Development and Cultural Change*, III, 4, July 1955, pp. 352–366. A sociological analysis of four community-development projects in Nigeria.

Preliminary Strategies and Recommendations for Nigerian Rural Development, 1968–1985. East Lansing: Michigan State, July, 1968. Summarizes the history of agricultural development in Nigeria and identifies major problems. Presents recommendations for rural development in Nigeria and three alternative sets of projections and policies for Nigerian agricultural development. Focuses on smallholder production of export crops.

Raison, Jacques. "Education en Milieu Rural: Une Expérience Camerounaise," in Revue Tiers-Monde, XI, No. 41, January–March 1970. A description of an agricultural education program begun by P. Chauvat.

Skorov, George. *Integration of Education and Economic Planning in Tanzania.* IIEP monograph No. 6. Paris: UNESCO, 1966. An assessment of manpower requirements including non-formal education.

Experiments in Fundamental Education in French African Territories. Paris: UNESCO, Educational Clearinghouse, 1955. A useful survey of non-formal educational programs in the former French African territories.

Van Rensburg, Patrick. *Education and Development in an Emerging Country.* Uppsala: Scandinavian Institute of African Studies, 1967. A practical and realistic commentary on the needs of African education related to development. Based on the development of a formal/non-formal program at Swaneng Hill School, Botswana. The civics course developed at the school is described in detail.

Van Rensburg, Patrick. "Education and Training in Relation to Rural Development," in *Youth and Development in Africa.* London: Commonwealth Secretariat, 1970, pp. 111–134. A description of the Brigade training of Swaneng Hill School, Botswana and proposals to integrate training with community development.

Watts, E. R. "Agricultural Extension in Embu District of Kenya," *Journal of Rural Development*, 1969. A case study to detect which sources of information actually reach farmers. The contributions of Farmer Training Centers and agricultural extension staff are examined in particular.

Wilson, Fergus. *The Role of Educational Planning in Agricultural Development.* IIEP monograph No. 17. Paris: UNESCO, 1967. Stresses the complexity of the process of development and the need to understand factors that underlie the desire of rural peasants for economic and social improvement.

Wood, A. W. "The Experiment at Nyakashaka, Uganda," in *Youth and Development in Africa.* London: Commonwealth Secretariat, 1970, pp. 177–187.

Wood, A. W. *Vocational and Social Training of Primary-School-Leavers in the African Countries of the Commonwealth.* London: Commonwealth Secretariat, 1970. The result of a series of visits to African countries from November 1967 to February 1969. An investigation of a number of youth programs in various countries, mainly national youth services and low-level agricultural training for primary-school-leavers.

D. *Unpublished Material*

Anderson, John. *The Village Polytechnic.* An evaluation report prepared for the Ministry of Cooperatives and Social Services, August 1970, mimeo. A preliminary but detailed survey and evaluation of a number of Village Polytechnics in Kenya that attempt to train primary-school-leavers for self-employment.

Blaug, Mark. *The Role of Education in Enlarging the Exchange Economy in Middle Africa:* The English-Speaking Countries. Paris: UNESCO, March 1967. A pioneering study that attempts to assess the relationship between education and the growth of a money economy. It finds that resources invested in non-formal education are "surprisingly small" and concludes that education is only a partial solution to the transformation of subsistence agriculture.

Brownstein, L. *Preliminary Results of a Survey of 1964 KPE Candidates in Embu, Kitui, Kericho and Nyanza.* Discussion paper No. 58, Institute of Development Studies, University of Nairobi, November 1967, mimeo. Gives some valuable information on school-leavers attitudes and occupational patterns among primary-school-leavers in Kenya.

Callaway, Archibald. *Creating Employment for Africa's Youth.* A paper presented at the Seminar on Manpower Problems in Economic Development with Special Reference to Nigeria. Lagos: March 1964. The main suggestion is to utilize the indigenous apprenticeship system in Nigeria.

Cliffe, Lionel R. *The Role of Adult Education in the Development of East Africa.* Discussion paper No. 26, East African Institute of Social Research, Makerere and the Institute for Development Studies, Nairobi, March 1966. Argues for broadening of adult education not only for economic development but for "the whole fabric of life in a peasant community."

Costa, E. *A Tentative Assessment of Costs and Benefits of the Kenya National Youth Service.* Geneva: ILO, 1969, mimeo. An example of a cost-benefit analysis of a non-formal training scheme, measuring mainly private returns.

de Lattre, Anne. *Notes on Experiments in Educational Reform in our Francophone Countries of West Africa.* A travel diary of an African journey in February 1970. Reproduced by The Ford Foundation, mimeo. A valuable survey of educational innovation in Cameroon, Dahomey, Ivory Coast and Niger.

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About the Authors: James R. Sheffield is associate professor and director of the Center for Education in Africa at Teachers College, Columbia University. He worked for two years, under the auspices of The Ford Foundation, in the Kenya Ministry of Education and did his graduate work at Harvard and Columbia Universities. Among his publications are *Education, Employment and Rural Development*, published in 1967 by East Africa Publishing House, *Education in the Republic of Kenya*, prepared for the U.S. Office of Education in 1971, and *Education in Kenya: An Historical Study*, which is soon to be published by Teachers College Press. **Victor P. Diejomaoh** has been a lecturer in economics at the University of Lagos since 1968. He did his graduate work at Harvard University and has held a variety of teaching and research positions in Africa and the United States. Most recently, he was a City of Nairobi Fellow at the University of Nairobi. He is currently secretary of the Nigerian Economics Society. He has written several articles on topics in development, taxation, and economics.

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